

YORKSHIRE
ARCHAEOLOGICAL
JOURNAL



VOLUME 44

1972

THE YORKSHIRE ARCHAEOLOGICAL SOCIETY

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THE
YORKSHIRE
ARCHAEOLOGICAL
JOURNAL

PUBLISHED UNDER THE DIRECTION OF THE COUNCIL
OF THE
YORKSHIRE ARCHAEOLOGICAL SOCIETY

VOLUME 44
FOR THE YEAR
1972

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PRINTED FOR THE SOCIETY BY
THE WEST YORKSHIRE PRINTING COMPANY LIMITED, WAKEFIELD

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The Council of the Society is grateful to the British Academy for a grant towards the costs of this volume, and to the bodies whose grants towards particular articles are referred to in the texts.

RUDSTON BARROW LXII: THE 1968 EXCAVATION

By A. L. PACITTO

I

In 1968 the barrow was still clearly visible, and appeared to stand some 0.7 m. high, although ploughing was rapidly reducing it. Excavation was becoming a matter of some urgency owing to this continuing plough-damage, and as it was a scheduled ancient monument a rescue excavation was organised by the Ministry of Public Building and Works. This excavation was supervised by the writer, for a period of four weeks in September and October 1968.¹

At the time of the first known excavation, by Canon Greenwell in 1869,² the barrow was 4½ ft. high and 66 ft. in diameter, and 'much worn down by the plough'. Since then it has been ploughed continuously, and in 1960 Messrs. C. and E. Grantham, of Driffeld, investigated an area of dark soil and charcoal which had been exposed on the east flank by deep ploughing. Flint implements were found, as well as sherds of Neolithic pottery, all on or near the old ground surface.³

II

THE EXCAVATION (N.G.R. TA/098658)

Quadrants were laid out on the mound, with balks running north, east, south and west; the centre point being determined both by visual examination of the site and by reference to the contour plan (Fig. 1). This operation was somewhat complicated by the distortion caused by the effects of Greenwell's excavation coupled with nearly a century of ploughing across the sloping field, and trenches across the ditch showed an error of about 2.5 m. At this stage only the plough-soil had been removed, so it was decided to re-site the quadrants on the true centre – which explains the double trenches excavated across the ditches (Fig. 2).

After the plough-soil had been removed it was obvious that little remained of the barrow. Greenwell described it as having an inner mound of earth 3½ ft. high and capped by a layer of chalk rubble – but only the very base of this remained, outlined on the northwest and southeast by crescents of chalk rubble. On the eastern edge this had been completely destroyed by ploughing, but on the west a thin band of chalk fragments survived (Fig. 2). There was no trace of any structure within this remaining chalk capping, although there was evidence for a marking-out trench around its outer edge.

About two-thirds of the area within the chalk capping showed signs of disturbance, and this extended to a point about 2 m. northeast of the centre. Within this disturbance the sandy soil contained an admixture of chalk fragments, whereas to the north the undisturbed mound had a very clean and characteristic 'turfy' appearance. Undoubtedly this marked the extent of Greenwell's trench, for he described his excavation as 'cutting away the mound, almost to its whole width, from the southeast side towards the centre'

¹ Thanks are due to Messrs. R. J. Hall, T. J. Hurst, and N. Birnie, who supervised on the site; Messrs. T. Lancelott and P. Barton, of the Ancient Monuments Branch, who organised the supply of labour and equipment; and Mr. M. E. Thompson, who kindly gave permission for the excavation on his land.

² Greenwell and Rolleston 'British Barrows'.

³ Thanks are due to the Trustees of the British Museum for permission to publish the finds from Greenwell's excavation; to Messrs. C. & E. Grantham of Driffeld for making available the material from their 1960 excavation; and to D. Bramwell for studying the animal bones.

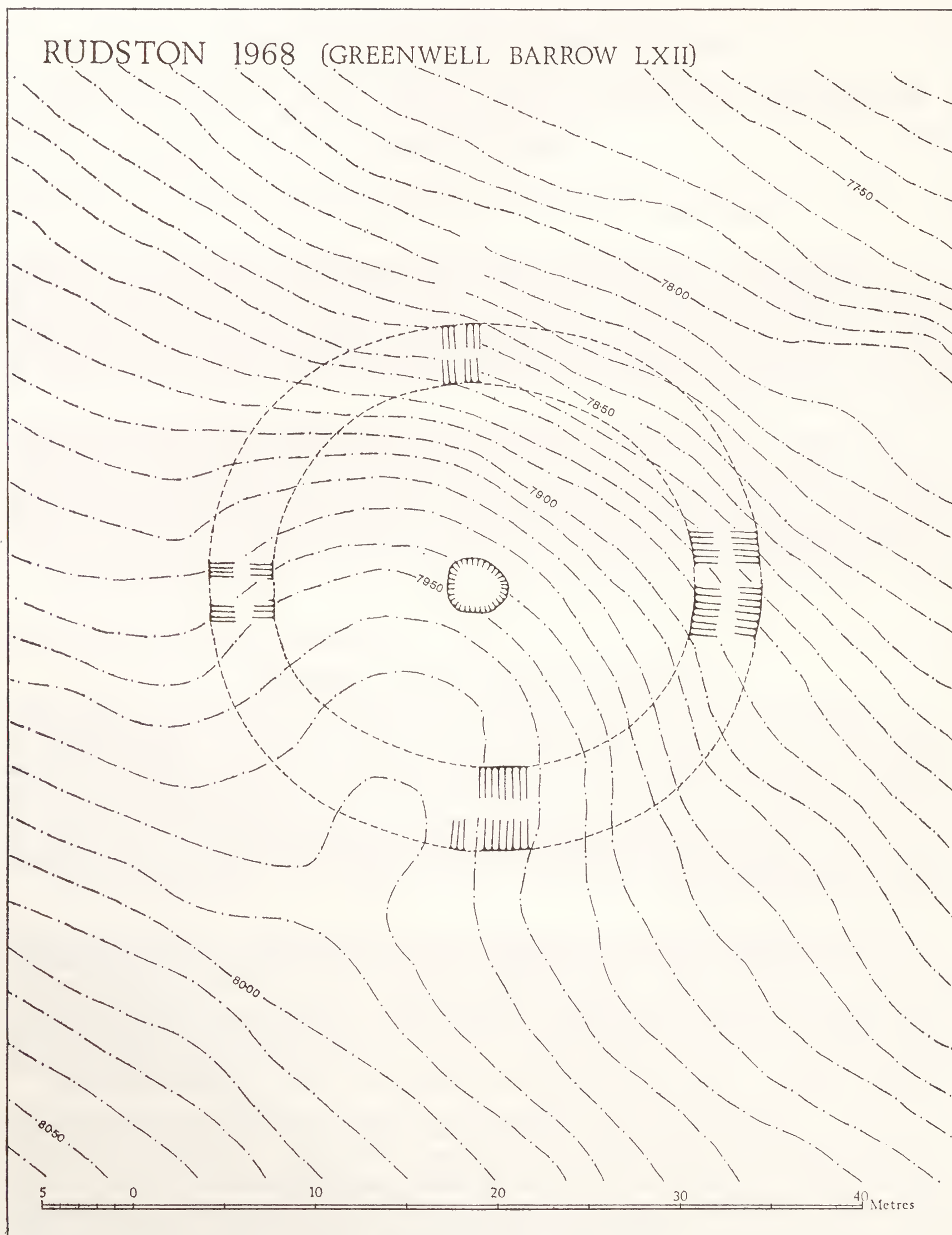


FIG. 1. Rudston LXII: contour plan.

(Fig. 3). Of the 'inner mound of earth' only 0.2 m. survived, but below it the pre-barrow turf-line was still clearly visible, and over most of its surface a skin of iron pan had formed. This seemed to follow the surface fairly closely for the most part, although in places it dipped abruptly well below even the base of the turf. The inner mound was

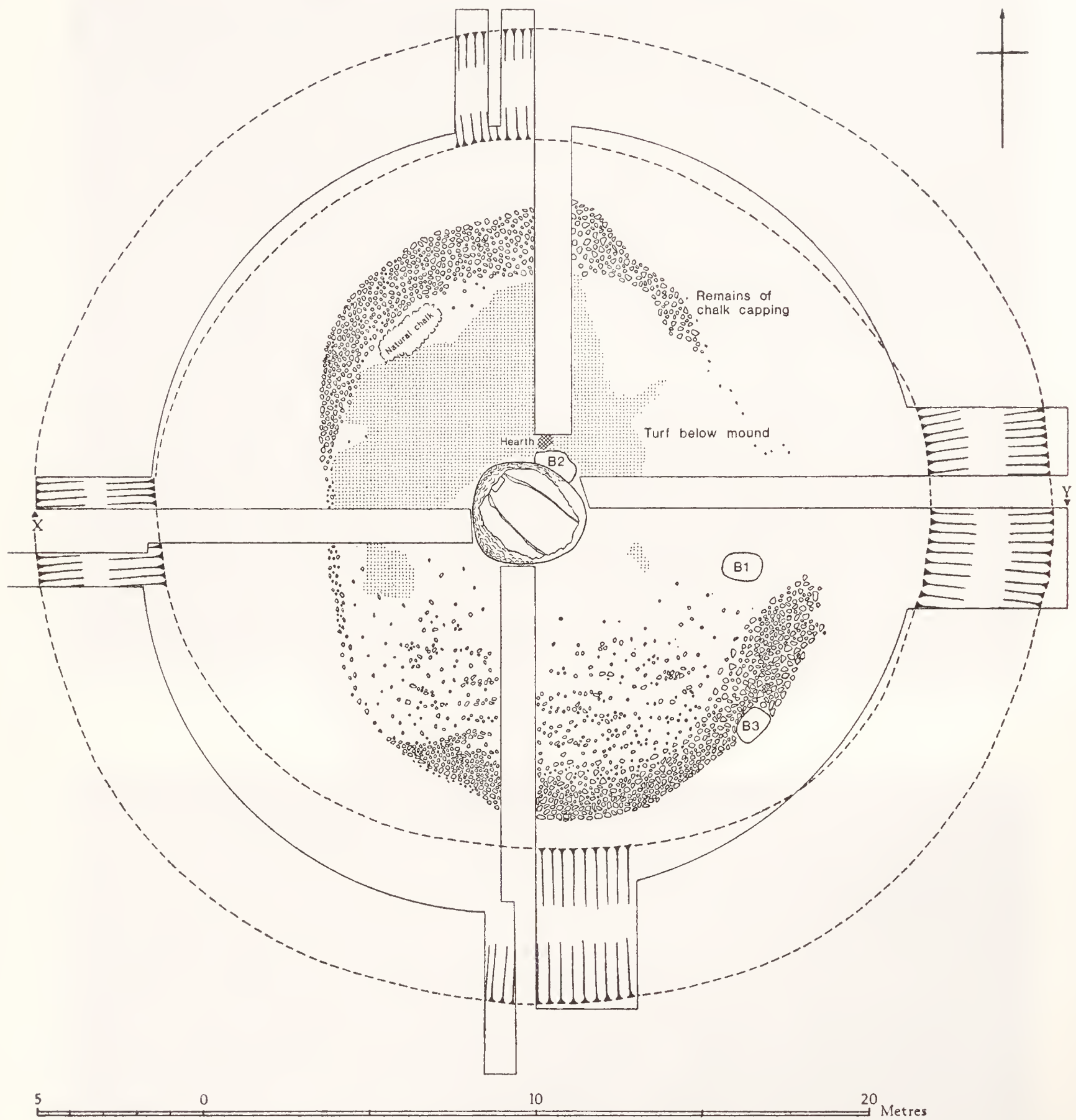


FIG. 2. Rudston LXII: plan of excavation.

composed of stacked turves which were still visible in section. Soil monoliths were taken at several points within this turf stack.

In the northeast quadrant traces of occupation were found on and below the pre-barrow turf. Flints, animal bones and fragments of pottery were scattered around, and 2 m. to the north of the centre there had been a small hearth (Fig. 2). The hearth measured 0.4 m. across and consisted of a patch of charcoal with much calcined bone, flint implements and one small sherd of pottery found immediately below the pre-barrow turf. This was the only feature earlier than the barrow which was found during the excavation, but elsewhere under the mound there was a general scatter of artefacts. Flint implements and chippings were also scattered fairly evenly throughout the body of the turf mound, suggesting that the extent of earlier occupation had covered the area from which the turves had been gathered.

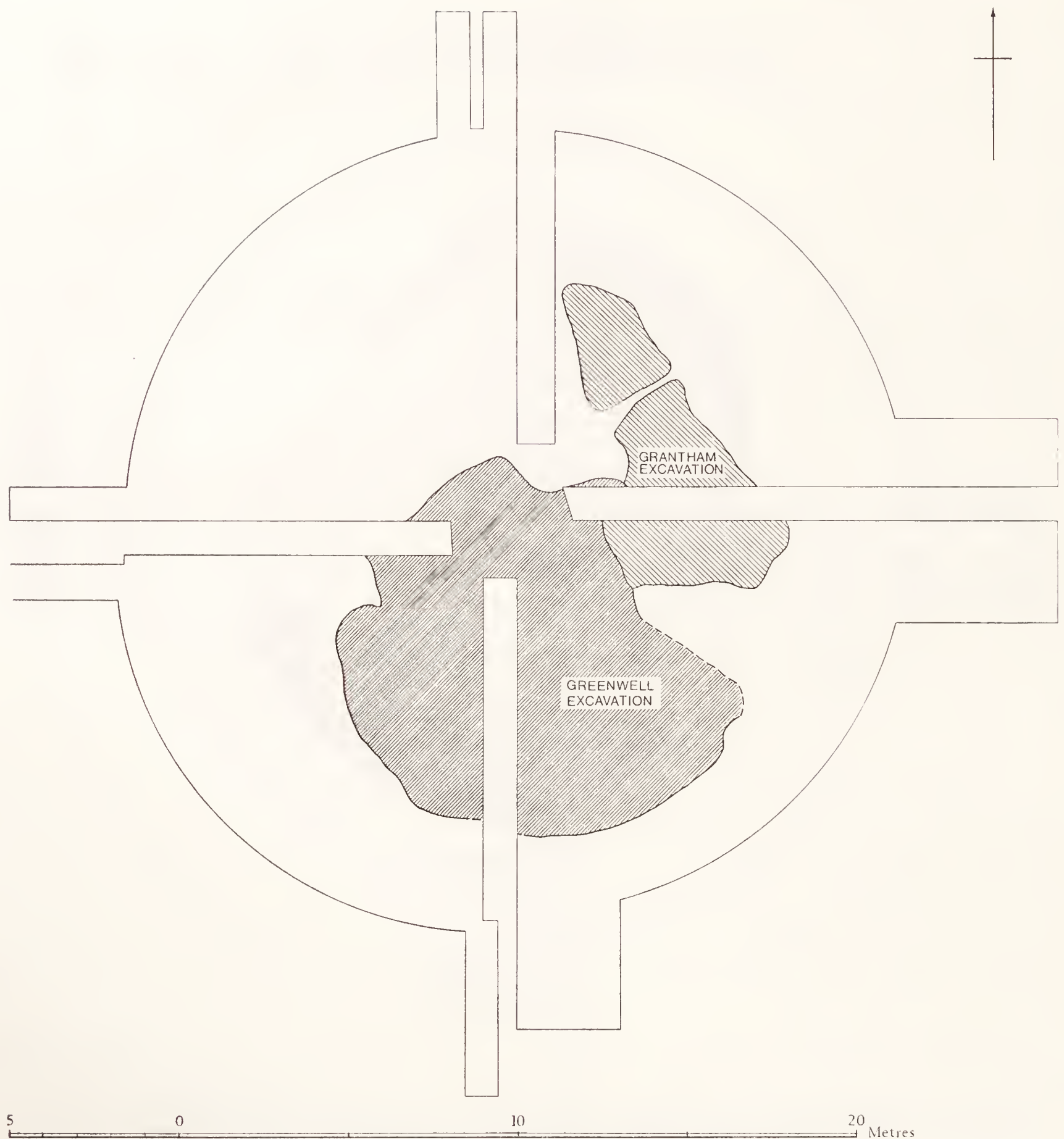


FIG. 3. Rudston LXII: limits of previous excavations.

The Central Pit

The central pit was again excavated, for although Greenwell had removed the burials in 1869, his note suggests that it must have been re-used at least once, and it is possible that it had been entirely a secondary feature. It was soon found that no stratified deposits survived, the sides having been overcut above the chalk and possibly even beyond, for the upper layers of the chalk were very soft and crumbling (Fig. 4). The overall dimensions of the pit agreed fairly well with Greenwell's description. The filling contained a large number of sandstone fragments, presumably the remains of cist-stones and the large slabs found near the top of the shaft. One of the latter had survived intact, and was found about 0.75 m. from the bottom of the pit on the north side (Pl. I). It measured 1.0 m. by 1.45 m. (3 ft. 3 ins. by 4 ft. 9 ins.) – which did not agree with any of the stones described by Greenwell. The most comparable measurements recorded by Greenwell were 3 ft. 3 ins. by 3 ft. 8 ins. – this could have been the same stone, for the difference of almost a foot would be a simple mistake if he had used a short rule.



PLATE I.
Rudston LXII, the Grave Pit.

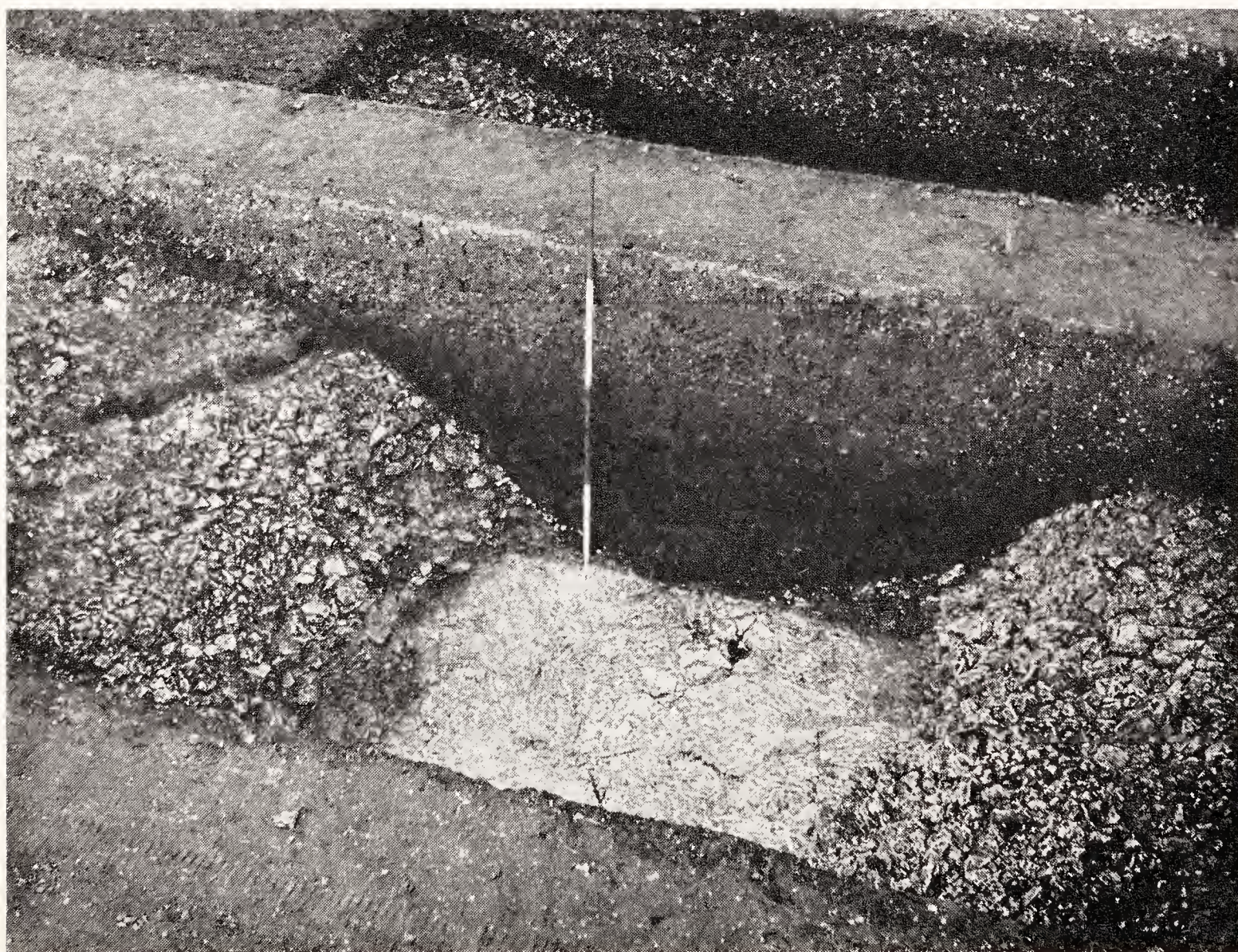



PLATE II.
Rudston LXII, the Ditch.



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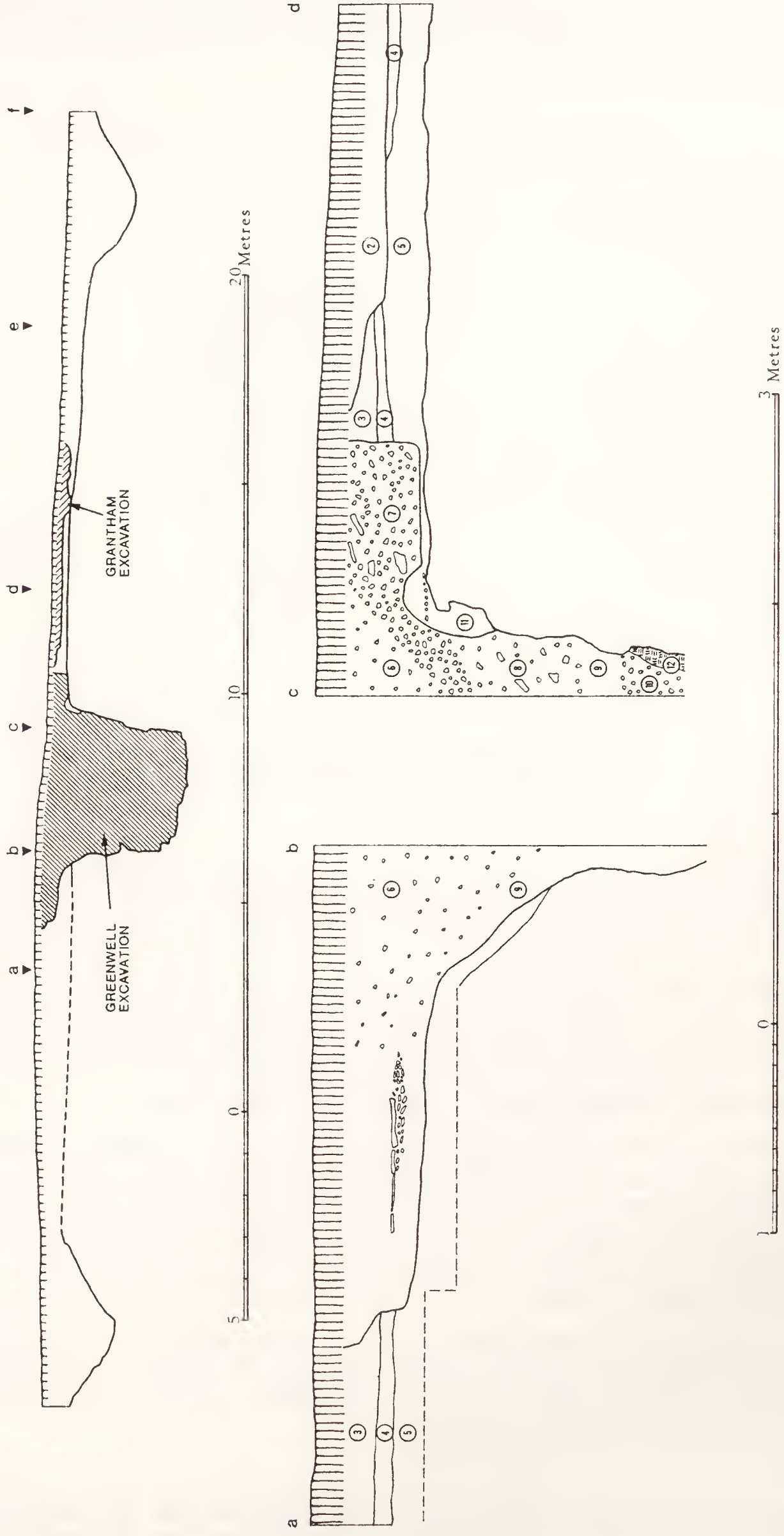


FIG. 4. East-West section (see Plan, Fig. 2) with pit details enlarged; *e* and *f* refer to Fig. 6.

On the bottom of the pit a shallow cutting some 0.15 m. deep had been made in the chalk, from the southeast to the northeast (Fig. 2). At its northwest end the side of the pit had been undercut to a depth of about 30 cms., and there seems little doubt that this was designed to receive the cists.

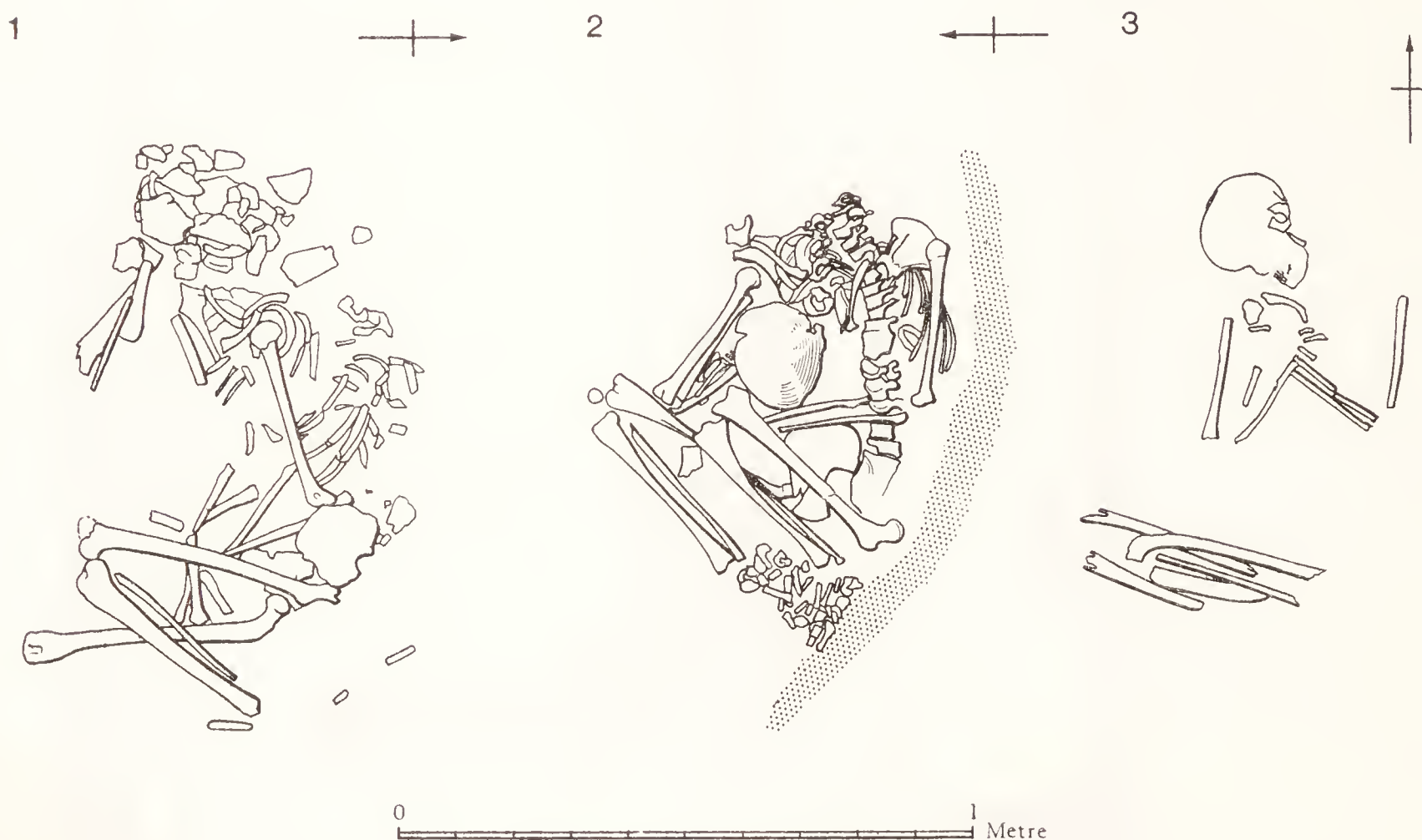


FIG. 5. Rudston LXII: burials.

The Burials

The primary burial had probably been destroyed in antiquity, and the secondary burials in the central pit were removed in 1869. However, three more secondary burials were found during the 1968 excavation (Figs. 2 and 5).

BURIAL 1 was found 6 m. east of the centre, within the area of the turf mound and immediately below the level of the pre-barrow turf. It was a crouched inhumation without grave-goods, on its right side with its head towards the centre of the mound. It had been disturbed at some time and the lower bones of the right leg were missing. The grave-pit could not be defined because of the disturbance.

BURIAL 2 was on the northeast edge of the central pit. A crouched inhumation without grave-goods, partly on its right side with the head slumped forward on to the chest, it was in a shallow pit just below the level of the pre-barrow turf. Any cutting through the turf mound had been destroyed by Greenwell's trench, which had missed Burial 2 by a few centimetres only. The iron pan that followed the pre-barrow turf-line dipped below the burial and seemed to follow the sides and bottom of the burial-pit.

BURIAL 3 had been cut through the tail of the chalk capping on the southeast side. It was a crouched inhumation without grave-goods, partly on its back with its knees drawn up to the right side and hands crossed on the chest. The grave-pit was clearly visible where it cut through the chalk capping.

The Ditch

A single wide ditch had been cut into the chalk around the barrow, and it seems probable that this would have supplied the chalk used for the capping. The natural chalk near the bottom of the ditch had decayed badly; the true profile is recorded in the section (Fig. 6).

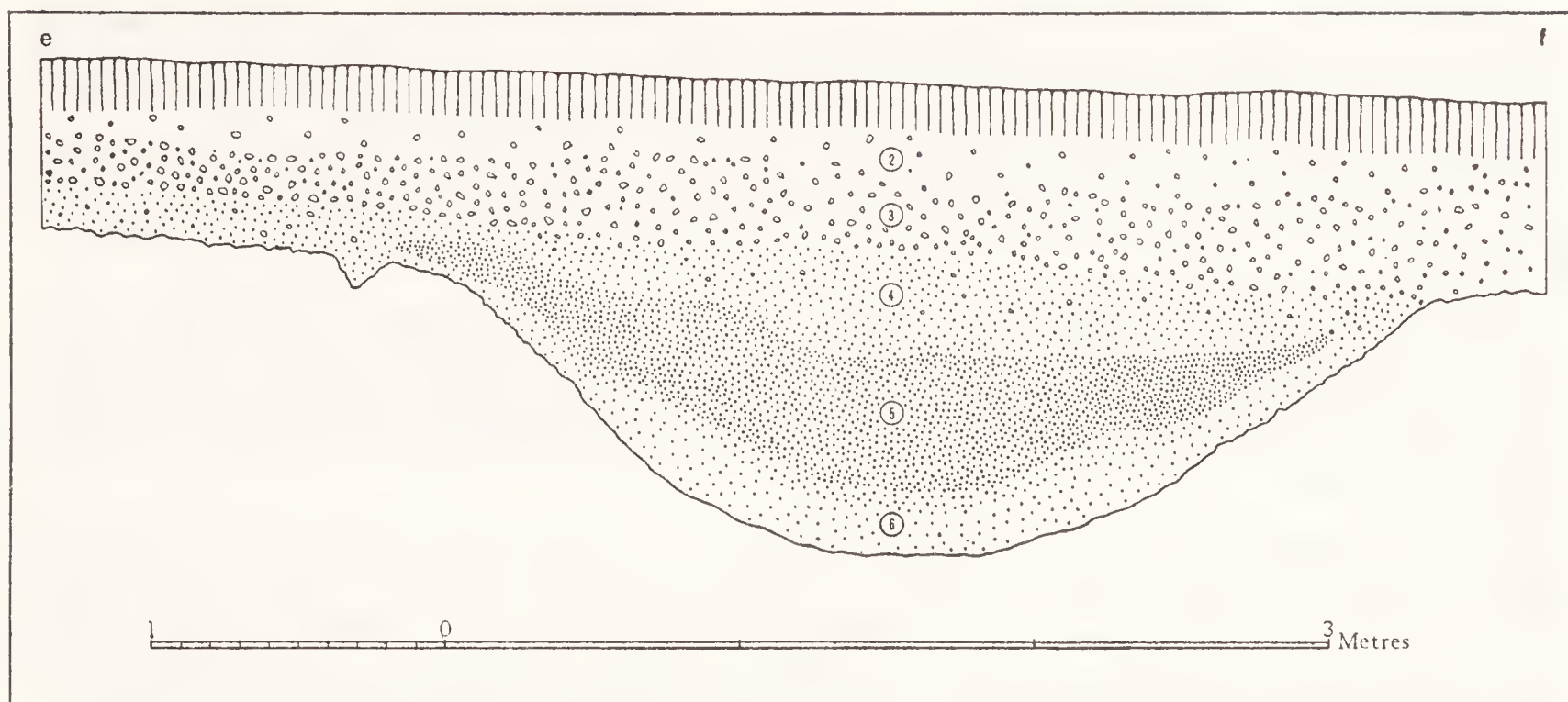


FIG. 6. Rudston LXII; Ditch section (east side of barrow).

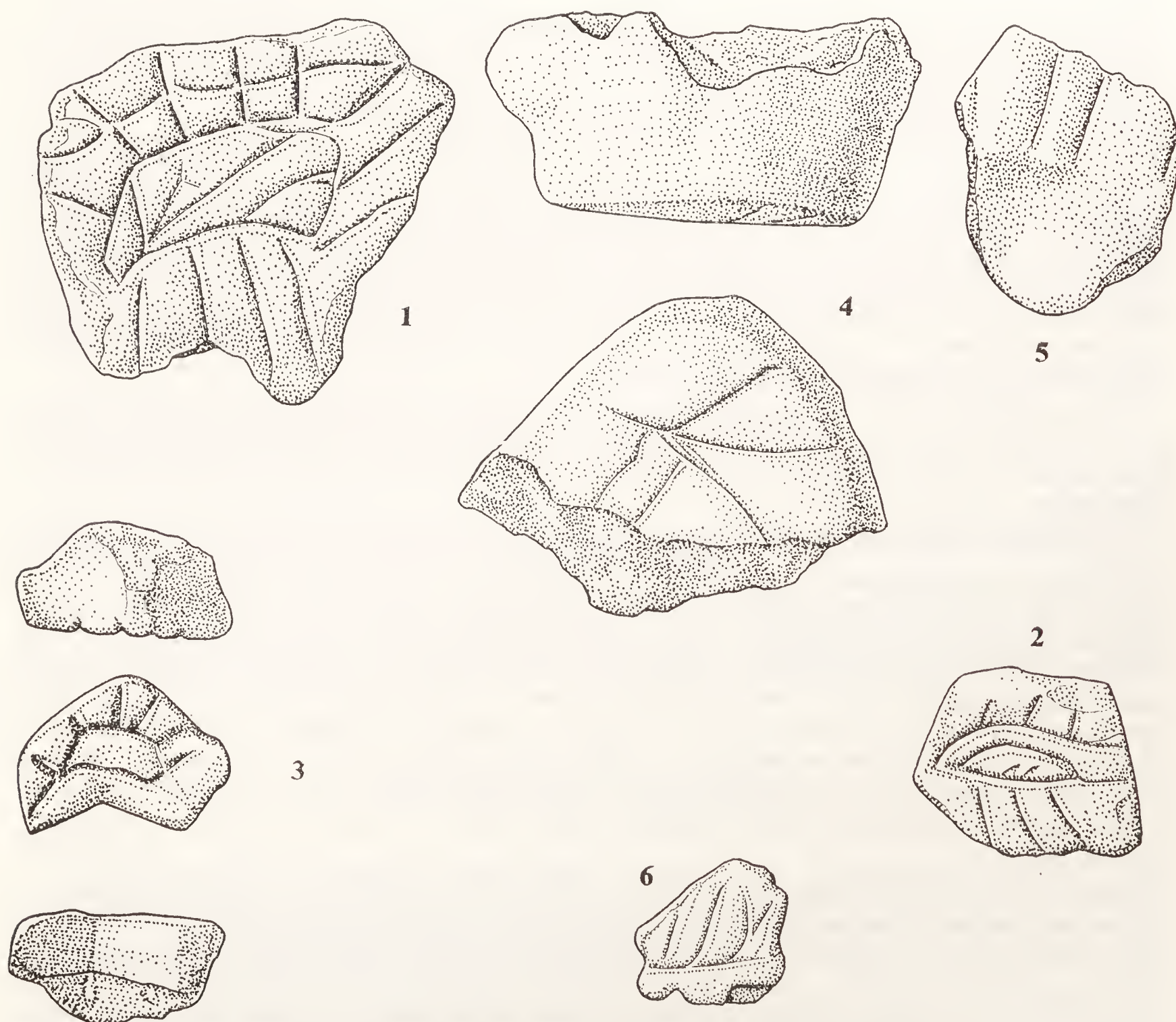


FIG. 7. Rudston LXII: decorated chips of sandstone (1968).

A feature of the ditch was the clean silty nature of the lower filling, which was composed of earth with no chalk and no obvious stratification. This suggests that the chalk 'capping' was a layer within the barrow, for a mound surfaced with chalk would have produced a quantity of chalk in the filling of the ditch. The silt was very similar in texture to the material of the inner turf mound, and it seems reasonable to postulate the presence of an outer layer of turves. If this layer had existed no trace of it had survived the ploughing.

Chips of sandstone similar to that used for the cists were found in the filling of the ditch, and several of them were decorated on one face with incised patterns. The stones were small, but the designs seemed to be centred and adapted to the irregular outlines, which suggests that they were complete objects and not fragments from larger decorated stones (Fig. 7).

On the south side of the site traces of small fires in the upper filling of the ditch had been covered by earth recently spread from the mound. It is an interesting thought that these fires may have been lit by Greenwell and his workmen sheltering in the lee of the spoil-heaps to eat their lunch. Greenwell records that he commenced excavating on a bright frosty day in November, with a strong wind blowing from the northeast.

III DISCUSSION

The re-excavation of this site was undertaken with three main objectives in view:—

- (a) To re-examine the great central grave pit and its relationship to the mound.
- (b) To look for any further burials.
- (c) To examine the pre-barrow occupation found by the Granthams.

One of the most important points to settle regarding the grave pit was the sequence of burials and their relationship to the rest of the mound and its contents. From Greenwell's notes there seemed to be several possibilities. The pit could have been either an original feature that was re-opened for the insertion of a later burial or burials, or it could have been entirely a secondary feature. He notes that it was clearly visible cutting down through the inner 'earthen' (turf) mound, but does not say if it also cut through the chalk 'capping'. The inference here is that in the central area the capping was already destroyed by the plough in Greenwell's day.

The structure of the mound itself would also allow for two phases of construction, first a small turf mound, and then a capping of chalk with a ditch and probably an outer covering of turves. Obviously these events could have taken place in several different sequences.

It was soon established that no useful stratification remained in or around the grave pit so that any interpretation would have to rely heavily on Greenwell's notes. That all of the burials found *in situ* by him were secondary to the turf mound would seem to be beyond dispute, even allowing for the verbal nature of the record. The cists in the bottom of the pit were certainly contemporary: they were of similar construction and fitted neatly together. Also, as mentioned above, the floor and one side of the pit had been carefully cut out to receive them. They were sealed at a higher level by large slabs of sandstone that formed a paving over most of the area of the pit. Almost certainly these were contemporary with the cists; a coincidental importation of similar stone at a later date is unlikely, and their function would seem to be purely to seal off the lower part of the pit.

Greenwell describes the pit in two parts, firstly what he calls the 'cutting', which is the upper part where it passes through the turf mound, and secondly the 'grave' which is from the old ground surface down. He seems to have been well aware of the possibility of re-opening in antiquity, and to have looked carefully for it. One of the vital points was the area where the 'cutting' and the grave met at the old ground surface. He has this to say of it. 'On approaching the centre it was found that a circular cutting, 9 ft. in

diameter, had been made into the barrow, coinciding exactly with the outline of the grave, which it was afterwards found had been excavated into the natural chalk . . . the sides of the cutting had been plastered over with a thin layer of clay, or else that water had been thrown over them, and that then, while still wet they had been rubbed over with the hand or some smooth instrument. . . . At the centre, and conterminous with the circuit of the cutting so often before mentioned, was a grave 9 ft. in diameter, excavated in the chalk, which it was evident had either been first made, or else enlarged when the cutting itself was first sunk through the barrow. . . . The sides of the grave, it should be remarked, appeared to have been plastered in the same way as those of the cutting above it.'

So, Greenwell's 'cutting' could not have been a re-opening of the grave below unless that grave was enlarged at the same time, in which case the cists which fitted into it so neatly would also have to be secondary. The 'plastering' of the sides of the pit from top to bottom might also suggest that it was completed in one operation, and backfilled promptly. It is difficult to find any evidence for a re-opening through the whole depth of the shaft, and even the fragmented bones could easily have been disturbed from the mound above.

The shaft is sealed by a 'dish-shaped' bed of charcoal just above the old ground surface, over which lay four more burials, one of which was certainly intrusive, and it was in these upper levels ('Amongst the filling in of the cutting') that the late Beaker fragments were found. This is the only specific mention of Beaker sherds being found in the filling, and Greenwell attaches little significance to their position, assuming them to be of earlier origin (see p. 17, no. 6).

The 'dish-shaped' bed of charcoal suggests settlement of the lower grave filling after its deposition, again suggesting fairly rapid backfilling. Above the four burials overlying this was a layer of charcoal and burnt earth 5 ins. thick and 'running through the whole extent of the cutting'. There is no mention of disturbance or subsidence here, despite the intrusive burial below it, and at 3 ft. above the old ground surface it is the highest feature recorded.

The curious plastering of the sides remains unexplained, and one interesting possibility is that this may have been caused by water seeping down behind some kind of wooden lining fitted within the shaft to prevent the weathering and collapse of the sides. If this was so then the shaft could have remained open for most of its depth until all the lower burials were in place.¹

This grave must be considered to be secondary to the turf mound, and to have destroyed the primary completely. Probably after its completion the encircling ditch was cut and the barrow received its capping of turf and chalk.

Little can be said of the three unaccompanied burials found in 1968. In the case of 1 and 2 it was not possible to relate them to the chalk capping, although 3 was clearly cut through it. This and the intrusive one in the upper grave pit may be considered to be later than any surviving phase of barrow construction.

The pre-barrow occupation was already mostly removed. Greenwell's excavation had covered most of the southern half of the mound, while the Granthams had covered most of the eastern flank. One small hearth site had survived near the centre, but no structures were found (see p. 3).

IV

HUMAN AND ANIMAL BONES

THE INHUMATIONS

BURIAL 1

Reconstruction in the laboratory proved Burial 1 to be double. Both skeletons were adult males, the skull belonging to the younger man. The bones were light in colour and although in parts the surface was perfectly preserved, other areas were badly flaked and decayed. This patchy preservation, and the similarity of sex and size, made it impossible to assign the bones with certainty. One small fragment, the bregmatic angle of a parietal bone, represented the second skull.

¹ The cists from this barrow still survive in the northeast corner of Rudston Churchyard, where they were re-erected in 1871 by the Rev. P. Royston, the then Vicar of Rudston. P. Royston, *History of Rudston*.

After reconstruction, the skull was found to be virtually complete, and normal. There was no caries or other oral pathology, except that the lower right third molar was slightly impacted, erupted but touching its neighbour at an angle. The left lower third molar had been lost post-mortem. Two small wormian bones were present near lambda.

Post-cranial pathology

Both cervical skeletons are represented. That belonging to the skull is complete and normal. The other is fragmentary and shows pronounced osteoarthritic changes, lipping, osteoporosis, and the fusion of two central cervicals. Fragments of other vertebrae also show either pronounced changes or none. This is the evidence for the age difference mentioned above.

One right elbow joint showed two small areas of eburnation where the cartilage between the radius and humerus had degenerated. Apart from these two 'polished' areas the joint showed no abnormality.

One left scapula had a wedge-shaped cavity replacing its normally concave articular surface, and the dorsal half of this abnormal socket was rough, suggesting that movement was severely limited. Unfortunately, none of the humerus-heads is sufficiently well preserved for a total reconstruction of the joint deformity to be possible.

BURIAL 2

This was a crouched burial close to the ironpan layer. It is a female skeleton, remarkably well preserved and stained a dark brown in striking contrast to the other bones in the barrow. The left ilium was found separately (disturbed by Greenwell), although there is no actual contact it is so similar to the right ilium that identification is reasonably certain.

There are no abnormalities or pathology, no metopic suture or wormians, only slight mandibular and maxillary tauri.

The bone has splintered curiously along the temporals from an impact point on the left side of the frontal. This injury might be the cause of death but is more likely due to post-mortem pressure in the soil, combined with the unusual preservation.

Extra bones

The shafts of a tibia and fibula (probably left), and some extra metatarsals (one at least being right) were mixed with this skeleton. The preservation and dimensions are similar, but there are grooves in two places on the shin, probably relics of healed inflammation, and this usually bilateral marking is absent on the other tibiae. Perhaps this burial was removed by Greenwell's excavation which 'missed Burial 2 by centimetres'.

BURIAL 3

This was a crouched burial of a female, similar in colour to Burial 1 but even more decayed, so very few measurements were possible. The skull showed a metopic suture, and there were dental anomalies. A lump on the left tibia may be due to injury in life, or an artifact of erosion. The dental wear was greater than in the other individuals and may reflect a slightly greater age, but it might have been accelerated by the dental abnormalities, as follows.

Upper teeth

All the upper teeth are present, loose. The second and third molars have simple conical root-masses, and the left first molar also has malformed, fused roots.

Lower teeth

An unerupted lower tooth was noted in the decayed remnants of the mandible at excavation, and thought to be a canine. After cleaning, it was found to resemble a miniature first premolar, and a similar tooth was present on the other side. These supernumeraries were wholly unworn, in contrast to the larger, normal premolars which were worn flat. Presuming that the condition was symmetrical, they were between the canines and first premolars, upright but wholly unerupted.

The second molars were reduced like the upper molars, and the left one had an enamel pearl. The third molars had apparently never formed. The lower right incisors and canine were also missing, but this was almost certainly post-mortem damage. The remaining, left canine had double roots.

One lower premolar has a small occlusal caries cavity, the only trace of caries in the series.

BONES IN CENTRAL GRAVE FILL (Greenwell's disturbance).

Apart from some animal bone fragments, these may represent only two or three more individuals, as follows:—

1. Light coloured bones, with a badly eroded surface. They are from an adult female, and consist of all the main limb bones, the right innominate and the bregma region of the skull with fused sutures. A lower left canine showing calculus and heavy attrition may belong to this or the other 'old' individual in Burial 1.

2. Except for one fragment of an adult femur shaft probably from the above individual these represent an immature individual nearing full stature. The probable age is between 13 and 16. The surface is well preserved with a superficial brown stain in places, but breakage has exposed the cream-coloured, powdery interior. One cut, at mid tibia, appears quite recent and unstained. Parts of both forearms and at least one leg are present, also rib and humerus fragments. Rib fragments, and a lower molar crown probably belong here but are less certain.

- This is a skull (parietal) fragment which may belong to a much younger child, about 2 years old.
- A short and heavily mineralised fragment of radius. It might derive from Burial 1 but appears more heavily mineralised.

All measurable long-bones have been included in Table 2 because of the difficulties of attribution in some cases. But, incidentally, the table demonstrates how similar the individuals were within each sex. Using Trotter and Gleser formulae¹ on the two measurable femora, the male height was 176 cm. and the female height 154 cm.

The age sequence as estimated by the severity of dental wear is Burials 2, 1, 3. The first two have their third molars almost unworn, so they are quite young adults, though root growth is completed and the epiphyses obliterated even in the youngest. Burial 3 has all the teeth worn flat, the first molars being worn down just past the occlusal fissures. The unstratified individuals include the youngest specimens and, perhaps, the oldest, judging solely by sutural obliteration.

There are no green stains indicating contact with bronze or copper objects, no signs of deliberate cutting or any evidence of burning on any of the bones.

TABLE 1
MEASUREMENTS OF SKULLS

	1 (male)	2 (female)		1 (male)	2 (female)
L	194	182*	SC	—	9
B	138	140	DC	—	12
B'	100.4	102*			
S1	130*	122	GoGo	104	87
S2	133	123	ZZ	44	43
S3	124*	121	RB	30.2	34.4
S'1	113*	109	H'	—	30
S'2	118	115	ML	—	93
S'3	106*	97	RL	—	67
BiB	111	114	M2H	32.6	29
G2	42	38	CYL	19	22.2
G'1	—	48*	CH	62.2	65
MH	55.4	50	M<	123°	109*
NB	—	22	CrCr	93	—

TABLE 2
MEASUREMENTS OF LONG-BONES

			Femur					Tibia			Humerus				
			L1	L2	L3	D1	D2	Dhead	D1	D2	L1	D1	D2	RaL	Ul.L
Male	la	Lt	476	—	—	24	33.5	47	32†	21	333.3	20	17	262	—
	„	Rt	—	—	—	24	32	47	—	—	—	—	—	—	—
	lb	Lt	—	—	—	—	—	—	—	—	—	—	—	—	—
	„	Rt	—	—	—	22	33	—	—	—	331	20	17	—	—
Female	2	Lt	405	390	404	22.4	30.7	38	31	21	—	—	—	—	—
	„	Rt	—	—	—	—	—	38	33.1	21.1	280	20.5	15	221	239?
	„	Lt?	—	—	—	—	—	—	32	17.2	—	—	—	—	—
	3	Lt	—	—	—	—	—	—	31	21	—	—	—	—	—
	„	Rt	—	—	—	—	—	—	33.1	21.1	—	—	—	—	—
\$			—	—	—	30†	20†	—	30†	19.7	—	—	—	—	—
	Immature		—	—	—	—	—	—	30	17.4	—	—	19	(210)	—

*=approximate measurements. ()=length without epiphyses.
†=unknown amount lost by erosion.

ANIMAL BONES FROM THE 1960 EXCAVATION
By D. BRAMWELL

FIG. (Wild Boar) *Sus scrofa* L.

Two astragali measure 43 mm. and 46 mm. long respectively. There is a piece of jaw, odd teeth, shaft of a tibia and a scapula. All seem referable to the wild pig.

¹ Trotter & Gleser, 1958, *Am. J. Phys. Anthropol.*

RED DEER. *Cervus elephus* L.

Two molars, one very worn and one showing slight calcination; also an antler tine of this animal.

URUS. (Wild Ox) *Bos primigenius* Boj.

Lower and upper teeth. Distal end of a radius, portion of humerus shaft and distal end of right humerus. The latter measures 97 mm. across the condyles, which compares favourably with a range of 70 mm. to 104 mm. for the same bone at Star Carr. Distal ends of right and left tibiae of immature animals may also belong to this species, and there is an immature, but large, calcaneum of ox.

Ox. *Bos* species.

Intermediate in size between *B. prim.* and *B. long.* A few teeth. Metatarsal of distal width 55 mm., also metatarsal, proximal width of 51 mm. at the neck. Also an immature radius fragment and a piece of a vertebra.

DOMESTIC OX. *Bos longifrons* Owen.

A few remains belong to this type of ox. A metatarsal bone has a proximal width of 42 mm., and there is part of a pelvic bone.

MAN?

Fragment of distal articulation of a femur, and a fragment of the pelvis.

The interesting feature of this collection of bones is the presence of three types of oxen. The intermediate size is probably wild. Domestic animals seem to form a small proportion of the collection, which, if truly representative, suggests a large amount of animal food came from hunting of the forest forms of wild pig, wild ox and red deer. Perhaps the settlement represents an early stage in forest clearance in East Yorkshire.

V

THE FINDS

By T. G. MANBY

The final excavation of this barrow provides an occasion to consider all the cultural material recovered, including the unpublished material obtained by Messrs. C. and E. Grantham in 1960 and the partly published finds from Greenwell's excavation. The material from the present excavation has been deposited with Greenwell's original finds in the British Museum, and those from the second excavation are in Messrs. Grantham's private museum at Driffield.

The stratigraphy of the barrow suggests that the cultural material might conveniently be considered in three groups:—

- I. Pre-barrow occupation represented by pottery, flints and animal bones in the pre-barrow soil and the earth mound.
- II. Grave goods, pottery, flints and metal deposited with the burials.
- III. Post-barrow construction deposits over and around the barrow.

I. PRE-BARROW OCCUPATION

The construction of any earthwork can preserve the old land surface beneath, with its archaeological content, from natural denudation and later cultivation. The scraping up of turf and soil for the mound results in the removal of the cultural content of the soil and its preservation in the mound. Both these factors are present in the site under consideration. The evidence of extensive Neolithic occupation over the level summit of Rudston Wold is represented today by flint and stone artifacts contained in the ploughsoil. Natural and artificial forces have denuded the former land-surface and its structure over the past 2,000 years and the more durable flint and stone artifacts have survived ploughing. In several areas of Rudston Wold, including The Sheepwalk, Neolithic pits have been excavated by Messrs. Grantham and pottery and other cultural material recovered.¹ At these pit sites the actual occupied surface has been removed and only at places protected by a covering mound, such as Greenwell's Barrow LXII, has it been preserved for examination.

The hearth site and the sherds and flints contained in the pre-barrow soil represent the remains of an actual occupation site. The full extent of this occupation is uncertain but it clearly extended beyond the barrow into the adjacent areas that were stripped of their topsoil to be used for the earthen mound. The fresh appearance of much of the pottery from the mound, especially that in the dark soil patch examined by Messrs. Grantham, indicates the material had not lain on the surface and been subjected to weathering. The dark soil may have been derived from a debris-filled pit or pits whose contents were included in the scraping up of mound material. The only feature of this pre-barrow occupation to survive is the hearth site north of the barrow grave.

¹ Report in preparation.

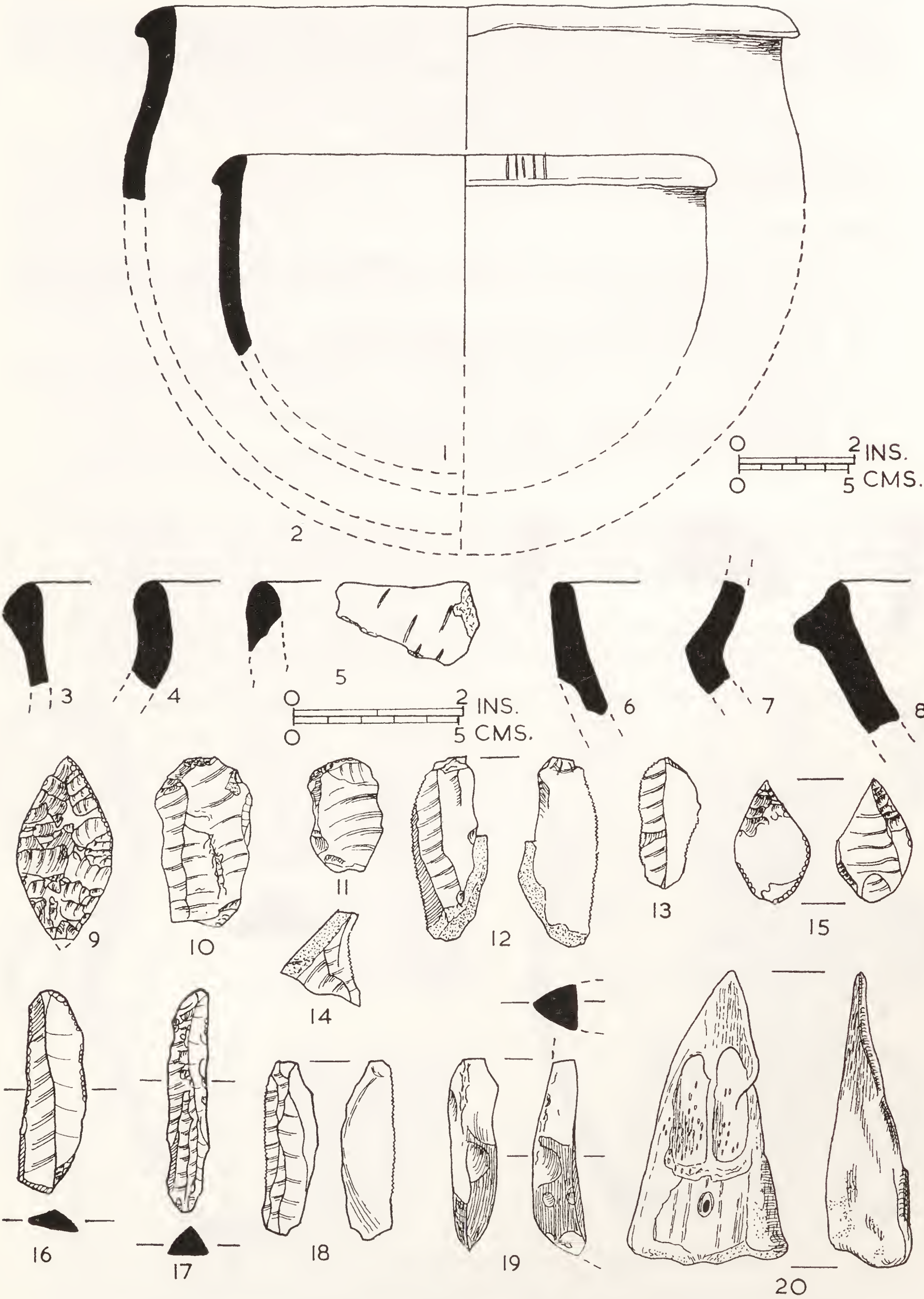


FIG. 8. Rudston LXII: pottery, flint and bone from the 1960 excavation (Grantham).

Pottery (Fig. 8)

The sherds are, on the whole, unweathered and of large size; many from the mound material join together and several vessels are represented. Some are represented by fragments found both in the mound material and in the pre-barrow soil. The principal fabrics present are:—

- a. Hard, dense dark brown with much calcite grit.
- b. A lightweight dark brown ware with a corky surface.
- c. Smooth brown to reddish with much small calcite grit.
- d. A very coarse thick heavy reddish fabric with much protruding grit.
- e. Soft dark-grey ware with much grit.

Pottery illustrated:—

1. The greater part of a large bowl with a heavy overhanging rim, 19.9 cm. (7 ins.) diameter rim. Fabric *a*. Decorated on the exterior of the rim with groups of short vertical lines. 1960 excavation.
2. The upper portion of a large bowl with an overhanging rim, 26.6 cm. (10½ ins.) diameter rim. Fabric *c*. 1960 excavation.
3. A rim with external thickening. Fabric *c*. 1960 excavation.
4. An incurving rim with slight external thickening. Fabric *c*. 1960 excavation.
5. A pointed rim of a bowl with short diagonal lines incised on the exterior. Fabric *c*. 1960 excavation.
6. Round-topped rim of a simple bowl. Fabric *c*. 1960 excavation.
7. A sharply carinated shoulder. Fabric *b*. 1960 excavation.
8. An overhanging rim with outbent neck. Fabric *e*. 1960 excavation.

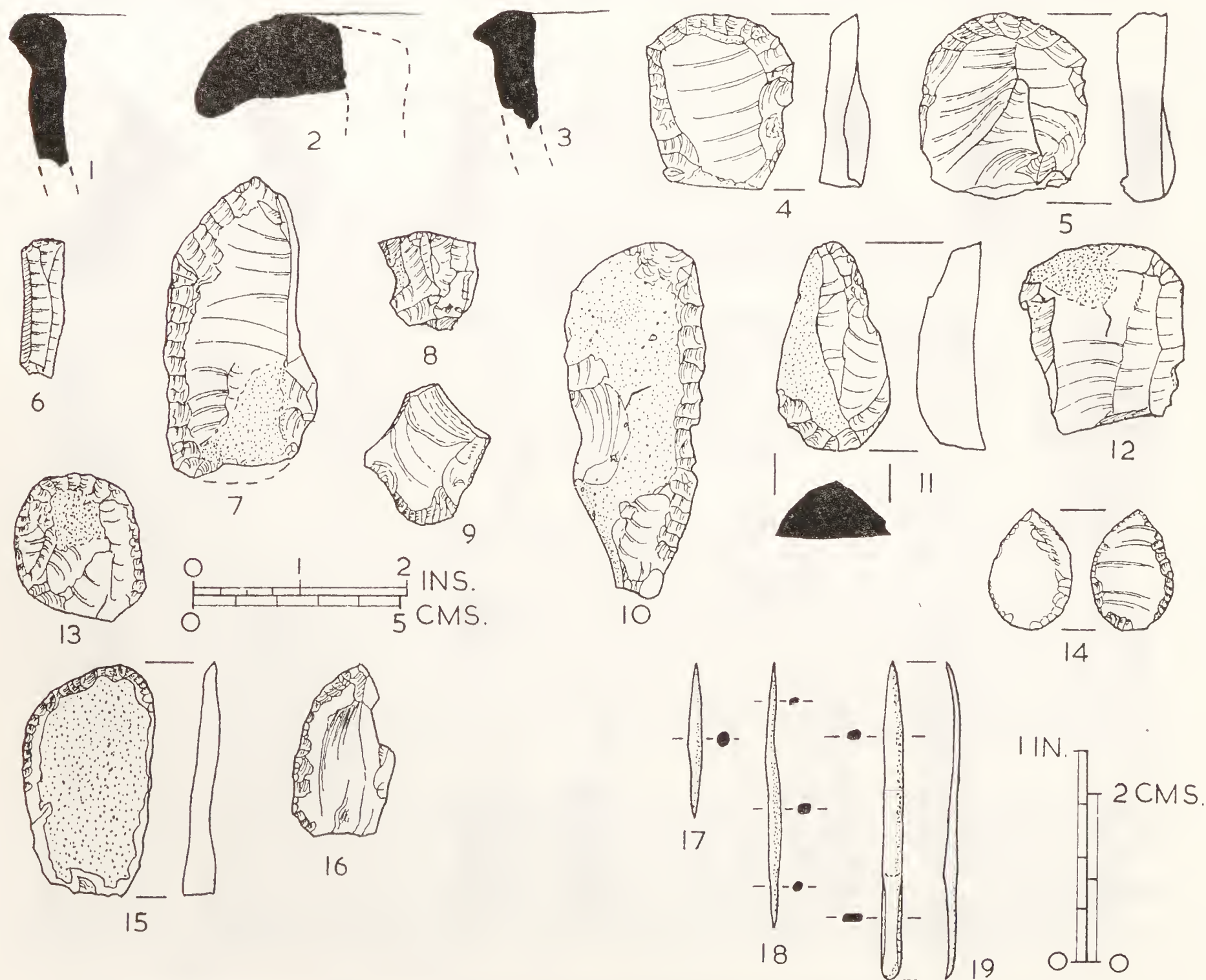


FIG. 9. Rudston LXII: pottery, flints and (?)copper objects.

Fig. 9:

1. A round-topped overhanging rim, hollow neck. Hard, dark brown fabric with dark grey core, laminated structure. Much crushed calcite grit and sand. From the base of the chalk capping, 1968 excavation.
2. Part of a very large heavy overhanging rim of a vessel of large diameter. Fabric *a*.
3. Pinched-out overhanging rim. Fabric *a*. This and the last mentioned rim with thirteen other sherds were recovered in 1968 from the infilling of the 1960 excavations.

Flint Industry

Associated with the pottery the 1960 excavations yielded an extensive flint industry. The flint waste comprised five cores, 273 flakes and 17 blades. Brown flint was the sole raw material, some flakes retain patches of a brown external skin and have rolled and battered edges that betray their pebble origin. A thin blue-ish to white patination has developed on all pieces of waste and implements.

Fig. 8:

9. A double pointed leaf-shaped arrowhead, shallow flaking on both faces with very fine trimming along the edges.
- 10 & 11. Two endscrapers.
- 12-14 & 18. Serrated edged flakes and blades; 27 of these implements represented, 4 made on blades, 3 on blade segments and the remainder on flakes.
15. A round-based leaf-shaped arrowhead, limited marginal retouch on both faces.
16. Blade with marginal retouch.
17. Stout triangular flake with retouched edges and keel.
19. Flake struck off the corner of a flint axe with a polished cutting edge. From an axe of pointed oval section.

The 1968 excavation did not yield a similar concentration of flint material but a scatter of flakes and implements in the pre-barrow surface and the mound material.

Fig. 9:

- 4 & 5. Two broad flint scrapers, one burnt. From around the hearth, the same area also produced 12 flakes, 2 micro-blades, and two core-rejuvenation flakes. The mesolithic character of some of the above industry was repeated in the remainder of the industry obtained from the remainder of the old landsurface:— 2 graver spalls, 1 microblade, a blade, a core-rejuvenation flake and 9 flakes.
6. A serrated-edged blade.
7. A single-edged knife on a broad flint flake. The knife and the above serrated blade were found at the base of the chalk capping, from the same position came a core-rejuvenation flake and 2 ordinary flakes.

Greenwell reported many flint flakes, 2 round scrapers, six saws and a knife from amongst the mound material.¹

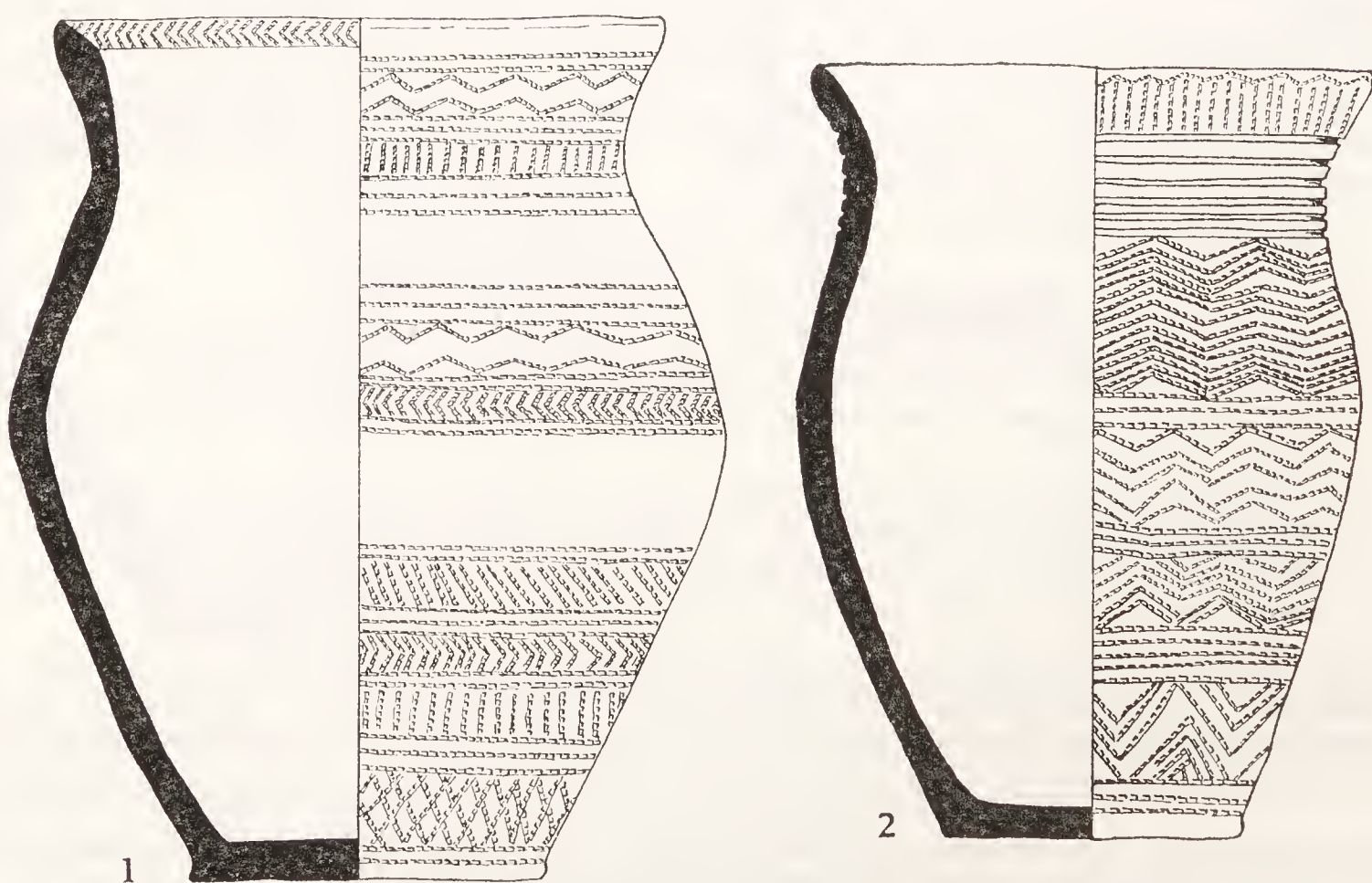


FIG. 10. Rudston LXII: beakers accompanying cremation burials ($\frac{1}{3}$).

¹ W. Greenwell, *British Barrows* (Oxford 1877), 245.

Bone

Associated with the pottery and flint industry recovered by the 1960 excavations were many animal bones, mostly ox (see above, p. 12). There was a point made sharpening the obliquely cut off terminal of a meta-podial bone of a small ox (Fig. 8: 20).

II. GRAVE GOODS (Figs. 10 and 11)

1. Accompanying an adult cremation burial laid in the centre of the floor of the southern cist was a Beaker standing upright in the southeastern corner of the cist. Greenwell records the vessel contained some dark coloured matter.

A complete Beaker¹ (Fig. 10, 1) 21.8 cm. (8.6 ins.) high;
15.3 cm. (6 ins.) diameter rim;
9.2 cm. (3.6 ins.) diameter base.

Hard reddish buff fabric with stone grit, smooth surface. Decorated with comb impressions arranged in three zones on neck, body and around the base; also on the internal rim bevel. British Museum 79.12-9.700.

2. Standing upright behind the skull of a crouched adult inhumation burial on the floor of the northern cist was a Beaker. In front of the face was a piece of iron stone and two child burials. Greenwell records that this vessel contained some dark matter.

A complete Beaker² (Fig. 11, 1) 19.7 cm. (7¾ ins.) high;
12.7 cm. (5 ins.) diameter rim;
7.6 cm. (3 ins.) diameter base.

Hard reddish buff fabric with dark stone grits, smooth surface. Decorated with comb impressions arranged in three zones on the body; fringes of diagonal lines below the rim and on its flat top. British Museum 79.12-9.699.

3. On the floor of the grave, and east of the northern cist, was a heap of cremated bones and 30 cms. (1 ft.) away was a Beaker standing upright.

A complete Beaker³ (Fig. 10, 2) 19.7 cm. (7¾ ins.) high;
14 cm. (5½ ins.) diameter rim;
7.6 cm. (3 ins.) diameter base.

Buff-grey fabric, black core. Decorated with a zone of flat-bottomed grooves around the neck; the exterior covered with comb-impressed decoration; zones of vertical herring-bone pattern separated by horizontal lines. British Museum 79.12-9.701.

4. Accompanying an inhumation burial in the upper grave filling was a Beaker behind the legs. Behind the hips was a copper awl and a flint chipping, in front of the chest was a flint knife, two chippings and a copper awl. This burial of an adult female was in the centre of the grave cutting just above the dish-shaped bed of charcoal that spanned the grave filling. This was regarded by Greenwell as a later burial inserted into the grave filling that disturbed a male inhumation burial, removing a portion of the skeleton. Greenwell suggested the possibility that one of the awls and the Beaker could have accompanied this disturbed burial.

A complete Beaker⁴ (Fig. 11, 5) 17.8 cm. (7 ins.) high;
14.7 cm. (5.8 ins.) diameter rim;
10.7 cm. (4.2 ins.) diameter base.

A squat vessel with inward sloping rim, flat topped. Hard smooth reddish fabric. Decorated with flat-bottomed grooves around the exterior. British Museum 79.12-9.697.

Awl, perhaps copper? found behind the hip. 1.9 cm. (¾ ins.) long. Double pointed, round section (Fig. 9, 17).

Awl, perhaps copper? found in front of the chest 3.3 cm. (1.3 ins.) long. Double pointed, round sectioned but square at the central point. British Museum 79.12-9.704 (Fig. 9, 18).

Flint 'knife', actually a scraper. Made from a primary flake retaining the rough cortex on the dorsal surface. 5.5 cm. (2¼ ins.) long. British Museum 79.12-9.706 (Fig. 9, 15).

5. Accompanying a female inhumation burial in the chalk filled central portion of the upper grave filling was a Beaker behind the head. Under the feet was a flint knife. The burial rested just above the dish-shaped bed of charcoal and was level with the old landsurface, Greenwell's 'natural surface'.

¹ Greenwell, 240; J. Abercromby, *Bronze Age Pottery* . . . (1912), i, Fig. 13; D. L. Clarke, *Beaker Pottery of Great Britain and Ireland* (Cambridge 1970) No. 1367, Fig. 530.

² Greenwell, 240, Fig. 120; Abercromby, Fig. 136; Clarke, No. 1368, Fig. 536; T. G. Manby, Rudston Barrow LXII: Beaker-cremation Associations. *Y.A.J.* xlii (1969), Fig. 2, 1.

³ Greenwell, 240-1; Abercromby, Fig. 137; Clarke, No. 1369, Fig. 298; Manby, Fig. 2, 2.

⁴ Greenwell, 236; Abercromby, Fig. 139; Clarke, No. 1371, Fig. 386.

A complete Beaker¹ (Fig. 11, 2) 15.2 cm. (6 ins.) high;
13.5 cm. (5.3 ins.) diameter rim;
7.9 cm. (3.1 ins.) diameter base.

A fairly hard thin buff fabric. Decorated with comb impressions and incised crosses arranged in three zones on the exterior. British Museum 79.12-9.698.

Flint Knife, 4.1 cm. (1 in.) long. Brown flint flake, patinated grey, retouched along one edge. British Museum 79.12-9.706 (Fig. 9, 16).

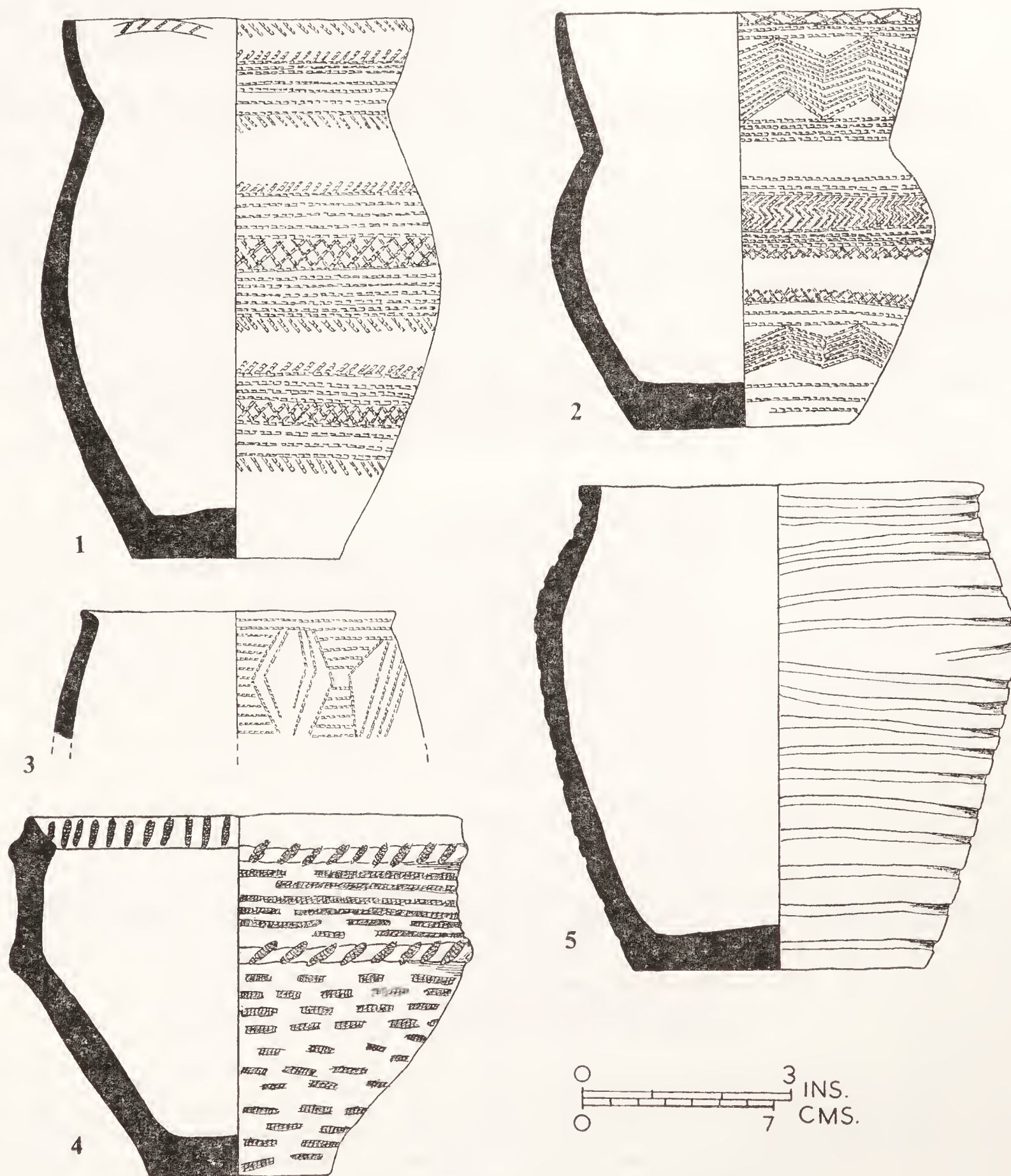


FIG. 11. Rudston LXII: beakers and food vessel.

6. 'Amongst the infilling of the cutting were found, scattered about, the fragments of a "drinking cup", the bones, some entire some broken, of more than one body, and a bone pin, all of which must be referred to interments which had been disturbed in making the cutting'.²

Rim sherds of a Beaker³ (Fig. 11, 3) 11.4 cm. (4.5 ins.) diameter rim. Brown fabric with black core. Incurving rim with moulded lip. Decorated with comb impressions in panels. British Museum 79.12-9.702.

¹ Greenwell, 237, Fig. 82; Abercromby, Fig. 138; Clarke, No. 1370, Fig. 705.

² Greenwell, 237.

³ Clarke, No. 1372 F.

7. The first burial recorded by Greenwell was a crouched female inhumation 1.22 m. (4 ft.) southwest of the barrow centre and 4 ft. above the old surface, therefore in the chalk capping according to the measurements given. The burial had a Food Vessel in front of the face and a bronze awl in front of the chest.

A complete Food Vessel¹ (Fig. 11, 4) 13.3 cm. (5¼ ins.) high;
15.3 cm. (6 ins.) diameter rim;
6.7 cm. (2 ins.) diameter base.

Grey to buff fabric with large grits. Impressed cord maggot decoration on the exterior and the rim bevel. Typologically the vessel belongs to Type 2(iv) of the present writer's revision of Abercromby's classification.² British Museum 79.12-9.696.

Bronze Awl, 3.8 cm. (1½ ins.) long. Single pointed, oval section, flattened tang. British Museum (Fig. 9, 19).

III. POST-BARROW CONSTRUCTION DEPOSITS

The majority of artifacts recovered by the 1968 excavation from features and layers of post-barrow date are likely to be derived from the barrow mound. This certainly applies to pottery and flints obtained from the infilling of Greenwell's trench. The top soil and upper ditch filling were directly derived from the mound by modern cultivation. Later occupation of the mound area is indicated by the sherds of Medieval pottery.

Prehistoric Pottery

Greenwell's Trench Filling: Two small sherds. Fabric *a* and *b*.
Upper filling of Ditch: Two small sherds of Fabric *c*, and a large sherd, ½ in. thick, of a brown fabric with much flint grit erupting through the surfaces.
Modern Top Soil: A shouldered fragment, Fabric *b* and three small sherds Fabric *d*.

Flint Industry

Greenwell's Trench Filling: Four broad scrapers.
One end and side scraper.
Eight flakes and three blades.
A graver and graver spall. A core-rejuvenation flake.
Middle filling of Ditch: A serrated-edged flake.
A single edged flint knife.
A two platformed microlithic core (Fig. 9, 8).
Five flakes and two blades.
Upper Ditch Filling layers: A double-ended scraper (Fig. 9, 11).
Two broad scrapers (Fig. 9, 12).
A flake scraper (Fig. 9, 9).
An oval scraper (Fig. 9, 13).
Four horse-shoe scrapers.
One end scraper.
One serrated edged flake.
One tranchet flake.
Thirty-five flakes and three blades.
Two core-rejuvenation flakes.
The Modern Top Soil: A leaf-shaped arrowhead with rounded base and marginal retouch on both sides (Fig. 9, 14).
Two large broad scrapers.
Two broad scrapers.
One edge-retouched flake.
Fifty-three flakes, three blades and one micro-blade.

Utilised Stones

The 1968 excavations yielded a remarkable series of decorated stones. The material is fine and medium grained sandstone of a type frequently found on East Yorkshire Neolithic sites used for pot-boilers. All the decorated pieces are heat shattered fragments of larger cobbles and are reddened to varying extents. The decoration has been incised on the natural rounded surfaces of the fragments. The lines are 1 to 2 mm. in depth; experiment shows that such lines as these can easily be incised on stone of this kind by a flint point.

Fig. 7:

1. A large fragment with diagonal lines radiating from a central figure. Brown fine grained stone.
2. Diagonal lines on each side of a fish-shaped figure. Medium grained grey sandstone.
3. Diagonal lines radiating from a central figure. Medium grained brown sandstone.
4. A large fragment with an arrow-shaped motif. Brown medium grained sandstone.
5. Fragment with three parallel lines. Brown medium grained sandstone.
6. A small fragment with diagonal lines from a single line. Brown fine grained sandstone.

¹ Greenwell, 235; Abercromby, Fig. 110.

² T. G. Manby, Food Vessels of the Peak District, *Derbyshire A.J.* lxxvii (1957), 1-12, Fig. 1.

Medieval Pottery

Small sherds for several vessels were obtained in 1968 from the top soil and the upper ditch filling.

Staxton Ware; Five sherds including a cooking pot rim.

Humber Basin Ware: Eight sherds, two show the springs of handles. Hard grey with reddish and orange surfaces, olive green glaze.

Roof Tile: Fragment of a flat tile, 1.7 cm. thick. Hard orange with grey core and fine sandy grit. A mottled dark green glaze on the upper surface.

Discussion

The débris of human settlement, represented by sherds, flints, utilised stones, animal bones and charcoal, have been recovered from the mound material of many barrows excavated in Yorkshire. Such material was obtained by Greenwell from his Rudston Barrow LXI and LXVII¹ and in the case of such nineteenth-century excavations it can be difficult to distinguish if the débris had been deposited by accident or design. The inclusion of a portion of occupation débris – rubbish – in burial structures was a feature of the Neolithic long barrows of Willerby² and Skendleby,³ the chambered long barrow of West Kennet⁴ and the Neolithic round barrow sites of Whiteleaf⁵ and Worlington.⁶ The accidental incorporation of earlier occupation features and débris took place during the building of Early Bronze Age round barrows at such sites as Sawdon Moor⁷ and Green Howe, North Deighton.⁸ The scraping of the turf and soil from around a barrow site could result in material of culturally and chronologically dissimilar occupations being included in the same mound and this aspect must be recognised in the study of such derived cultural material.

At the present site the hearth, north of the grave, and the presence of sherds and flints in the old soil and turf demonstrate actual occupation on the site at some time prior to the mound. The extent of this pre-barrow occupation is uncertain but it clearly extended into the area immediately around the barrow site, into the adjacent area stripped of its soil and turf to provide material for the mound. The unweathered nature of the pottery from the site could argue for a short interval between the occupation and the beginning of barrow construction. Apart from the flint implements and by-products of mesolithic aspect the majority of flint implements are appropriate to the pottery types from the site. A single Neolithic occupation of the site appears to be presented by the pottery, most of the flint industry and the animal remains.

The pottery from the pre-barrow occupation of Greenwell's Barrow LXII represents globular and hemispherical bowls with simple and overhanging rims, a carinated bowl form is also represented. The overhanging rimmed bowls are the most diagnostic and can easily be paralleled at other East Yorkshire sites. At Beacon Hill, Flamborough, the overhanging rimmed bowl form is represented with sherds bearing horizontal lugs.⁹ The heavy rim forms of Rudston Barrow LXII, and bowls with lugs were formerly included in the Heslerton Ware class of Neolithic pottery in Eastern Yorkshire.¹⁰ However, it can be demonstrated by associations, including the present site, that the distinctive fabric and decoration are totally dissimilar from the S-profiled Heslerton Bowls. The present writer has proposed the term Towthorpe Ware to describe this pottery group

¹ Greenwell, 229–232 and 257–262; N. Newbigin, *The Neolithic Pottery of Yorkshire*, *P.P.S.* iii (1937), 211–212.

² T. G. Manby, *The Excavation of the Willerby Wold Long Barrow*, *P.P.S.* xxix (1963), 183–184.

³ C. W. Phillips, *The Excavation of the Giant's Hills Long Barrow, Skendleby, Lincolnshire*, *Arch. lxxxv* (1936), 57–9.

⁴ S. Piggott, *The West Kennet Long Barrow*, (1962), 26–30.

⁵ V. G. Childe and I. F. Smith, *The Excavation of a Neolithic Barrow on Whiteleaf Hill, Bucks.* *P.P.S.* xx (1954), 216–217.

⁶ G. Briscoe, *Swale's Tumulus: a Combined Neolithic 'A' and Bronze Age Barrow at Worlington, Suffolk*. *Pro. Camb. Ant. S.* 1 (1956), 101–112.

⁷ Excavation by T. C. M. Brewster, 1967.

⁸ E. S. Wood, *Green Howe, North Deighton, Yorkshire*. *Y.A.J.* 43 (1971).

⁹ J. W. Moore, *Excavations at Beacon Hill, Flamborough Head*, *Y.A.J.* xli (1964), 191–202.

¹⁰ S. Piggott, *Neolithic Cultures of the North British Isles* (Cambridge 1954), 114.

after the associations represented by Mortimer's Towthorpe Barrow 18.¹ At this round barrow site a pair of bowls with overhanging rims accompanied six inhumation burials packed together on a stone pavement.² Similar bowls have been found with multiple inhumation burials, on clay and stone floors, at Sherburn Wold,³ Cowlam⁴ and Aldro.⁵ The same form of double-pointed flint arrowhead represented at Rudston (Fig. 8, 9) occurs at Towthorpe Barrow 18, also associated with serrated-edged flakes, and at other pavement burials in Yorkshire and other parts of Northern England.

The basic vessel forms of the Towthorpe Ware class represent Forms A to C of Piggott's old classification of British Neolithic pottery;⁶ the distribution of these vessel forms has been mapped, and the westerly distribution has been discussed by Atkinson.⁷ The affinities of Towthorpe Ware lie with the Hembury Ware of southwestern England, but not at the type site of Hembury in Devon⁸ where the overhanging rim is absent and a wide variety of lug forms are present. The overhanging rim appears in the developed Hembury Ware of the pre-causeway camp occupation at Windmill Hill, Wiltshire.⁹ Towthorpe Ware forms find further parallel in Wiltshire at Robin Hood's Ball,¹⁰ Waden Hill,¹¹ and Woodhenge.¹² Also in Dorset at sites like Thickthorn,¹³ Corfe Mullen,¹⁴ Pamphill¹⁵ and Maiden Castle.¹⁶ The distribution of Hembury Ware extends northwards into the Mendip Hills and a very fine bowl, with overhanging rim and vertical incised decoration on the rim, found in a cave at Chelms Combe¹⁷ is a close parallel to a Rudston vessel (Fig. 8, 2). Towthorpe Ware shows that Hembury Ware-using people spread into Northern England after the appearance of the overhanging rim in the ceramic fashions of southwestern England. At Windmill Hill in the pre-causeway camp occupation the overhanging rimmed bowls were associated with a phase yielding a radio-carbon date of (BM.73) 2950 \pm 150 B.C.¹⁸ The obvious route for a spread of people from Western Wessex northwards into Yorkshire is the Jurassic Ridge. The northward spread of Hembury Ware-related pottery was not confined to Yorkshire; the same vessel forms are represented in Wales and Western Scotland, representing a spread along the eastern side of the Irish Sea.¹⁹

The chronological aspects of Towthorpe Ware in Northern England and its relationship to other Neolithic cultural complexes are still imperfectly known. A pre-Beaker date was demonstrated at Beacon Hill, Flamborough, where Towthorpe Ware and Ebbsfleet style sherds occur together and stratified below a Beaker occupation.²⁰ The Beaker sherds are attributable to vessels of Clarke's All-Over-Cord and European Bell

¹ Newbigin, 212, (25), Fig. 2, 7-8.

² J. R. Mortimer, *Forty Years Researches* . . . (1905), 9-11, Figs. 14-15.

³ Greenwell, 146-147; Newbigin, 207 (9), Fig. 3.2 and 5.

⁴ Greenwell, 214-221; Newbigin, 205, Fig. 2.2.

⁵ Mortimer, 82.

⁶ S. Piggott, *The Neolithic Pottery of the British Isles*, *Arch. J.* lxxxviii (1931), Fig. 1.

⁷ R. J. C. Atkinson, *The Prehistoric Peoples of Scotland* (1962), 10, Fig. 1.

⁸ D. Liddell, Report on the Excavation at Hembury Fort, Devon, *Devon Arch. Ex. Soc.* 1930-1932 and 1935.

⁹ I. F. Smith, *Windmill Hill and Avebury* (1965), 57-60, Figs. 20-22.

¹⁰ N. Thomas, The Neolithic causewayed camp at Robin Hood's Ball, Shrewton. *Wilts. Arch. Mag.* lix (1964), 1-27.

¹¹ N. Thomas, A Neolithic Pit on Waden Hill, Avebury, *Wilts. Arch. Mag.* lvi (1955-6), 167-168, Fig. 1.

¹² M. E. Cunnington, *Woodhenge* (1929 Devizes), 144, Pls. 38 and 39.

¹³ C. D. Drew and S. Piggott, The Excavation of Long Barrow 163a on Thickthorn Down, Dorset. *P.P.S.* ii (1936), 85, Pl. XXII.

¹⁴ B. Calkin and S. Piggott, A Neolithic 'A' Habitation Site at Corfe Mullen, *P. Dorset N.H. & A.S.* lx (1958), lx (1938), 73-4.

¹⁵ N. H. Field, G. L. Matthews and I. F. Smith, New Neolithic Sites in Dorset and Bedfordshire, with a Note on the Distribution of Neolithic Storage-pits in Britain. *P.P.S.* xxx (1964), 357, Fig. 3.

¹⁶ R. E. M. Wheeler, *Maiden Castle, Dorset* (1943), 141, Figs. 26, 29 and 35.

¹⁷ R. C. C. Clay, *Excavation at Chelms Combe, Cheddar* (1926), 18-19.

¹⁸ Smith, 11.

¹⁹ W. F. Grimes. The Excavation of Ty-isaf Long Cairn, Brecknockshire, *P.P.S.* v (1939), 133, Fig. 6; J. G. Scott, The Chambered Cairn at Beacharra, Kintyre, Argyll. *P.P.S.* xxx (1964), 145 and 150, Figs. 8 and 10.

²⁰ Moore, 198.

Beaker Groups and datable to the period 1900 to 1800 B.C.¹ The association with Ebbsfleet style pottery is a circumstance repeated in Layer 5 of the Outer ditch of Windmill Hill, Wiltshire; charcoal from this layer yielded a Radiocarbon date of (BM.74) 2570 ± 150 B.C.² The advent of Towthorpe Ware remains to be established but it is likely to have taken place in the early Third Millenium B.C.

The Beakers associated with the burials and massive pit-grave, excavated by Greenwell, belong to several related Beaker Groups. The two vessels accompanying the cist burials belong to Clarke's North British Dutch Group (N2) and must have been contemporary with the third Beaker accompanying the cremation burial on the floor of the grave belonging to Clarke's North British/North Rhine Group (N/NR). The North British/North Rhine Beaker Group represents the earliest element of the second great wave of Beaker migration that started to arrive in the British Isles about 1700 B.C. The decorative motifs of this Beaker relate it to the Late Northern Beakers (N3) on one hand and the Developed Southern Beakers (S3) on the other.³ These connections serve to indicate that this Beaker is late in the series and illustrates the contemporary integration of the various Beaker Groups by the use of the same grave and rite of burial. The associated Beakers from the cists are evolved from the North British/Dutch Beakers that arrived from the Low Countries about 1700–1650 B.C. The whole burial group must have been deposited around 1600 B.C.

The burials in the upper part of the grave may have been contemporary with the initial burials at the bottom. However, the central chalk-filled area of the grave recorded by Greenwell suggests a possibility that the burial accompanying Beaker No. 5 could be an inserted grave. The dish-shaped bed of charcoal beneath the burial is very suggestive of settlement having taken place in the grave filling material before this burial was inserted. If this was the case the inserted burial must have taken place at some time after the infilling of the grave but before the erection of the mound. The Beaker accompanying the burial under discussion belongs to Clarke's Late Northern British Beaker Group N3(L), a development of the tradition represented by the cist associated Beakers.

The chronological and stratigraphical position of the barrel-shaped Beaker is difficult to appreciate. The vessel has been attributed by Clarke to a hybrid class, a Food Vessel/Beaker convergent to the East Anglian Beaker Group.⁴ The vessel is without parallel in East Yorkshire and geographically remote from the main East Anglian Beaker Group distribution in southeastern England. The two awls are the only metal items that have been found with a vessel connected to the East Anglian Beaker Group.

The broken Beaker sherds from the grave filling represent yet another Beaker tradition, the Developed Southern British Beaker Group S2(W). If this vessel had accompanied a primary burial disturbed by the insertion of the burials on the floor of the grave, as Greenwell suggested, or by the digging of the very large grave shaft, it would serve to emphasise the very late date and advanced phase of integration of the various Beaker Groups of the Yorkshire Wolds in the Late Neolithic Period.

The latest burial in this barrow with cultural associations is the Food Vessel-accompanied burial in the chalk capping. The vessel is a typologically late example of the Food Vessel series, Type 2(iv) and represents the last stage of development of double grooved Food Vessels where the ridge separating the grooves has evolved upwards until it appears to be a rim cordon. Parallels are provided in Yorkshire by Food Vessels found with burials at Aldro, Blanch Barrow 238, Lythe, Brotton and Pule Hill.⁵

¹ Clarke, 66-7.

² Smith, 15 and 73-74, Fig. 31.

³ Clarke, 124.

⁴ *Ibid*, 148-9.

⁵ T. G. Manby, Bronze Age Pottery from Pule Hill, Marsden. *Y.A.J.* xlii (1969), 273-282.

VI

THE ENVIRONMENT

By JULIE F. WISEMAN

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Geology. The site lies directly on the Upper Chalk (Cretaceous), with no intervening drift; Pleistocene and post-Pleistocene deposits in this area are confined to the valley floors. It is perhaps significant that the Upper Chalk in this area contains no flints.

Soil Samples. Three soil cores were examined for the presence of pollen, gastropods, phytoliths and seeds. The gastropods were identified as *Hygromia hispida* (L), *Cecilioides acicula* (Müller) and *Cepaea* spp. *C. acicula* is considered to be a modern introduction in archaeological sites. It is blind and has deep subterranean habits, thus burrowing its way to archaeological levels. *Hygromia hispida* lives in cultivated and wild places and is commonly found under moss, stones, logs and in similar habitats.

No identifiable phytoliths were found.

Few seeds were found and the dominant species was *Chenopodium bonus-henricus*. Godwin and Salisbury both refer to it as a prehistoric introduction, Godwin suggesting Late Neolithic or early Bronze Age. However, it is considered by some workers to be a species introduced during historic times. It may, therefore, represent contamination, although this is by no means certain. However, this view is strengthened by the fact that this species only occurred in large numbers in a core which appeared to have been disturbed recently, probably during Greenwell's excavation.

Pollen was completely absent from two of the cores, which is not surprising since pH values of about 8 were recorded for these soils. However, herbaceous pollen was found in small quantities in the core which also contained notable numbers of seeds and may, therefore, also represent contamination. If the disturbance of the soils which led to this proposed contamination were due to Greenwell's earlier excavation, this would mean that pollen had been preserved for an unusually long time in soils of such a high pH.

ACKNOWLEDGEMENTS

The gastropods were identified by Mrs. H. Jones of the Institute of Archaeology. Prof. G. W. Dimbleby of the Institute of Archaeology kindly provided both laboratory facilities and helpful discussion in connection with the study of pollen and seeds.

The Council of the Society wishes to thank the Department of the Environment for a grant towards the cost of publishing this report.

EXCAVATION OF IRON AGE HUT CIRCLES AT PERCY RIGG, KILDALE

By R. S. CLOSE

SUMMARY

A group of five circular huts at Percy Rigg (NZ 61011155) was excavated to floor level, and the peripheral ditches were cleared. There appeared to be three successive periods of construction:—

- (1) *Two small huts with central hearths, external diameters 18 ft. and 25 ft.*
- (2) *A hut with central hearth, external diameter 29 ft., drainage ditches cutting through the two smaller huts.*
- (3) *Two large well-constructed paved huts with stone walls surviving to three layers of stone, both of external diameter 28 ft.*

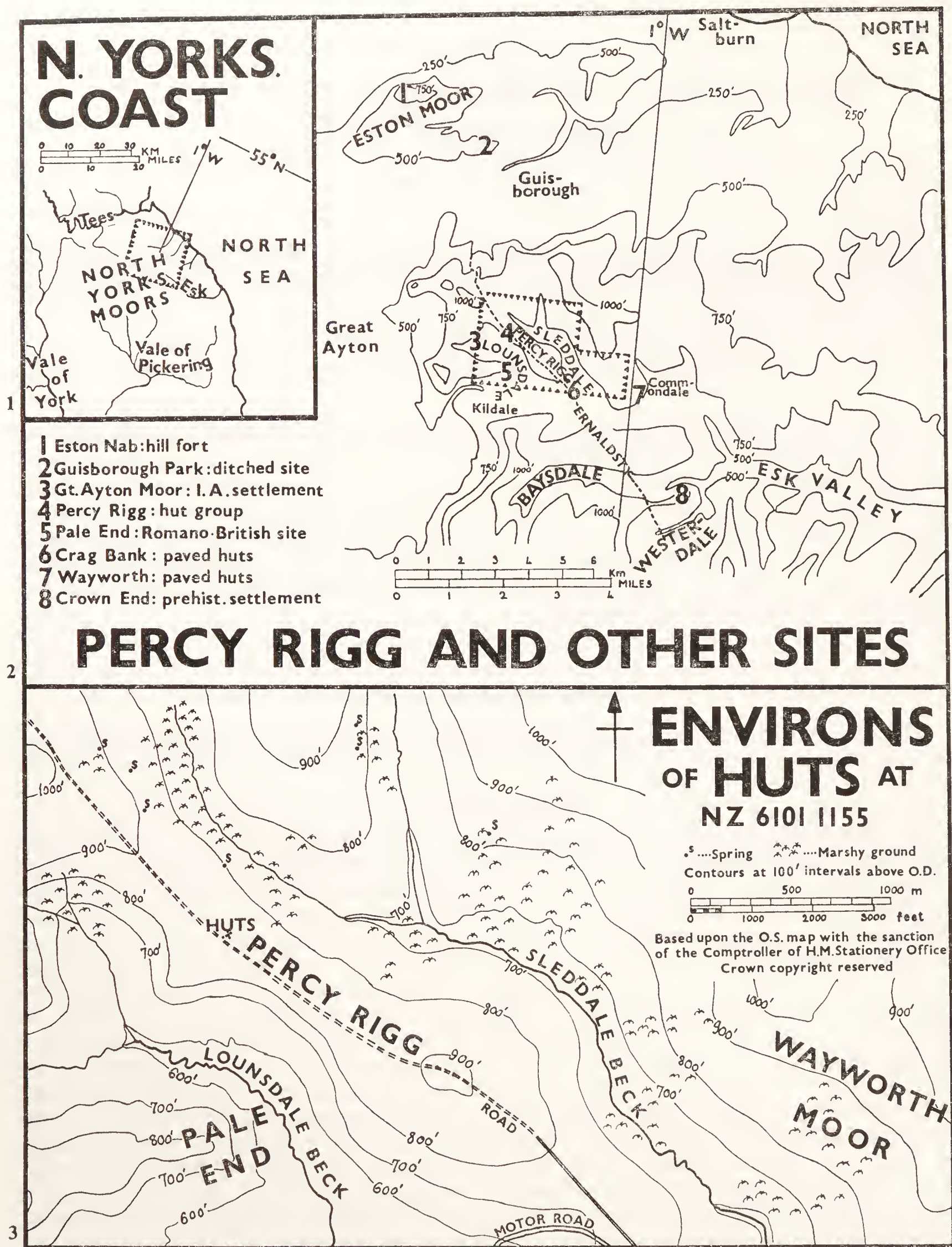
A cooking pit was associated with one of the earlier phases and had been covered by earth from a ditch of the final phase. The principal finds were nine saddle querns or rubbing stones, the base of a rotary quern, a door pivot, and some poorly-fired pottery sherds which show similarities to those from other northern Iron Age sites. The pottery contained fragments of Cleveland Dyke rock. The huts are associated with a rectangular field bounded by ditches visible on three sides.

I

INTRODUCTION

This site comprises the foundations and peripheral ditches of five circular huts grouped in an area approximately 150 ft. by 150 ft. It is in the northwest of the Cleveland Hills, about $1\frac{1}{4}$ miles due north of the village of Kildale, and lies 500 yds. southeast of Percy Cross at (N.G.R.) NZ 61011155. It is immediately to the east of the ancient Guisborough-Westerdale road, which in medieval times was named *Ernaldsty* (Figs. 1–3). This road was undoubtedly a prehistoric track, connecting the settlements at Eston Moor, Great Ayton Moor, the Percy Rigg huts, the paved huts at Crag Bank, and the Crown End settlement, as shown on the map. The site stands at about 880 ft. above sea level, near the crest of the ridge, the slope of the site itself being to the north east. The site as originally discovered was covered in bracken growing in dark peaty soil which varied from 5 ins. to 20 ins. in depth, being deepest above the prehistoric ditches. Below the peat was a thin band of red-brown iron pan and below this again 12 ins. to 14 ins. of light brown sandy clay with friable particles of bright yellow sandstone. This lay on a thinly-bedded yellow sandstone of the Lower Oolitic series from which it appears to be derived as a weathered layer. The moor surrounding the site on three sides is covered with heather growing in shallow peaty soil. Air photography has shown that the site lies at the mid-point of one side of a rectangular field (300 ft. in length), the boundaries of which are shallow linear ditches, three of these being clearly visible from the air. The situation is typical of late pre-historic settlement sites in the district, being on a sunny slope, not quite at the crest of the ridge and therefore sheltered to some degree. It is not far from a source of water, as a permanent spring emerges 300 yds. to the north of the huts.

This site was observed in 1962 by the late Mr. Fred Proud of Sleddale Farm. The writer and Mr. Raymond Hayes inspected the site and, observing the circular bank of hut A, suggested its prehistoric nature. Excavation, which took place in 1962–68, consisted of removing the peat, clearing the huts to expose floors and wall foundations, and removing the filling from the ditches. The latter were very easy to locate, being filled with greyish silt with charcoal and fallen stones, clearly visible in the yellow-brown

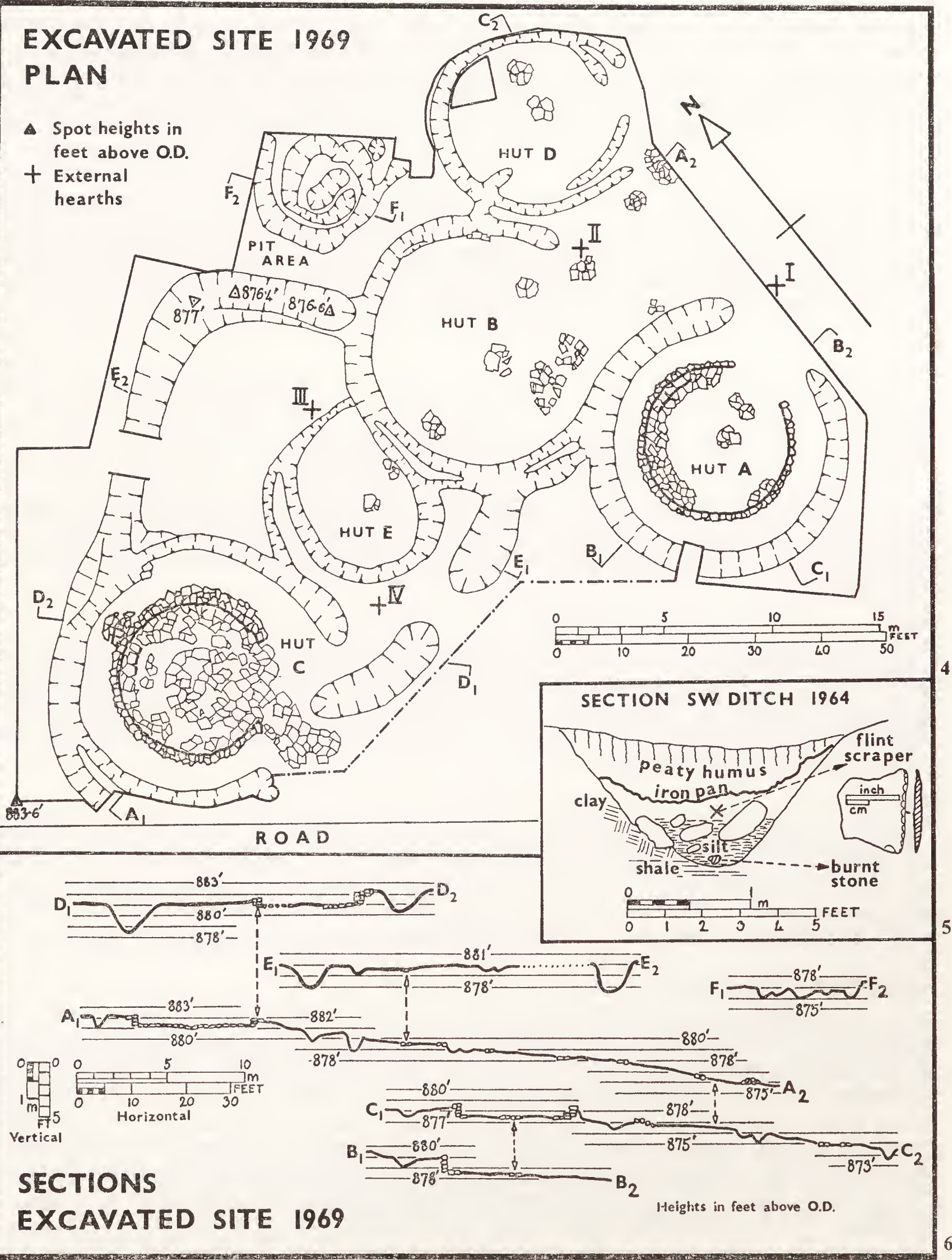


FIGS. 1-3.

clay. Trial holes were dug outside the hut area, on the moor surrounding the site, and to the west of the road. No further ditches or huts were located, but an outdoor hearth (Hearth I on Fig. 4) was discovered to the east of the site. To the northeast of the site, and adjoining it, a pit area was discovered within a semi-circular ditch; the ditch and pits were excavated down to the undisturbed clay.

II
THE EXCAVATION

The excavation revealed the foundations of five circular huts, surrounded by ditches, a pit area and four external hearths, as shown in Fig. 4.



FIGS. 4-6.

THE HUTS

Hut A

Hut A had an internal diameter of approximately 20 ft., with wall thickness 4 ft., giving external diameter 28 ft. The floor paving was incomplete, comprising a strip of stone paving along the northwest section of the interior. A hearth had been constructed at the centre of the hut, but consisted of completely unburnt stone. The wall of the hut remained standing to a height which varied from one to four courses of stone slab, namely between 5 ins. and 18 ins. The door of the hut faced northeast, down the prevailing slope. A single shallow ditch surrounded the hut, except for the gap at the doorway. The floor of this hut and that of hut C had been levelled and were almost horizontal, whereas the floors of B, D and E were on the natural slope.

Hut B

Internal diameter of the hut was 20 ft. and external diameter 29 ft. Only the foundation of the wall had survived, flush with the unpaved floor. There was a central hearth, heavily burnt. The hut was surrounded by a ditch, which cut into the circle of hut E, and drained across the site of hut D. The gap in the ditch towards the east indicated that the entrance of hut B faced in this direction.

Hut C

The internal diameter of hut C was 22 ft., with wall thickness 3 ft., giving external diameter 28 ft. External diameters of huts A, B and C were therefore equal, but hut A contained more internal space by virtue of the thinner wall. This hut was in the best condition on the site, with a complete horizontal paved floor, expertly laid, and had 3 to 4 courses of stone around much of the wall which survived to a height of 6 ins. to 16 ins. Some of the paving on the northwest sector of the hut was raised 4 ins. above the remainder. There was a central hearth, only one stone of which had been burnt, and that not heavily. The paving extended to an area outside the doorway, which in this case faced southeast.

Hut D

It was impossible to determine the diameter of this hut since the wall foundations had not survived. The external diameter was evidently less than the internal diameter of the ditch, which was 25 ft. The likely external diameter of hut D was therefore about 22 ft., significantly smaller than huts A, B and C. There was a central hearth, well burnt, and some fragments of stone paving.

Hut E

This hut was the smallest on the site, with external diameter 18 ft. A well-burnt hearth was found at the centre and a few paving stones were still in place in the floor. This hut had been disturbed, however, by a later track made across it, the wheel ruts of this track being clearly visible. The floor had also been cut into on the northeast side by the ditch of hut B, and some of the paving slabs of hut E were tilted at an angle into this ditch.

THE DITCHES (Figs. 4–6)

The ditches were of two distinct types, small ditches 3–5 ft. in width and 12 ins. to 18 ins. in depth, and large ditches 6 ft. in width and 2 ft. to 3 ft. in depth. All ditches were of the smaller kind except the ditch along the northwest periphery of the site, and the two separate ditches running from the door of hut C toward the ditch between huts A and B. It is noteworthy, however, that only one of the large ditches drained correctly, namely the ditch between huts A and E, draining into the smaller ditch surrounding hut B. The other two large ditches had no effective outlet. They may have been designed for use other than drainage, or if they were designed for drainage they were clearly unfinished. The pronounced right angle in the large ditch on the north of the site is perhaps to be compared with the rectangular ditches of the Northumberland Iron Age sites. The small ditches drained correctly, except for the double ditch to the south of

hut C. Double ditches were discovered surrounding huts D and B, as well as hut C, as shown in Fig. 4. The contents of the ditches were silt mixed with charcoal, there being much charcoal and burnt earth in the ditch surrounding hut B, especially at its western side, possibly suggesting destruction by fire. There were many wall stones in the ditches, and occasional finds such as querns, sherds and flints as described below.

THE PIT AREA

To the northwest of hut D a small semi-circular ditch was discovered, 15 ft. in diameter. The ditch was smaller than any others on the site, 2 ft. wide and 1 ft. deep, and rather difficult to follow in excavation. There was evidence of burning at parts of the ditch. In the centre of the area enclosed by the ditch was a heavy capstone 2 ft. by 1 ft. 6 ins. by 6 ins., which was removed. Below the capstone was a pit 2 ft. deep, containing silt and charcoal and burnt earth and stones, and on further excavation this pit extended eastwards in an irregular manner. No finds of any description emerged during the excavation of the area. Around the pit was a grey silty layer containing charcoal, which was thickest at the western side, and this was covered in turn by the yellow-brown clay of the site. It was clear that the earth from the large ditch immediately to the west had been thrown over the pit area during the digging of this ditch. These were not grain storage pits, but seem to be cooking pits as frequently found on northern Iron Age sites.

III

SUMMARY OF STRUCTURE

The two smallest huts, D and E, were the earliest on the site, but it is not clear which was the earlier or whether they were in use simultaneously. When hut B was built, its drainage ditches cut into the floor of hut E and drained across the floor of hut D which had both clearly gone out of use. The other two large huts A and C are of very similar design and were probably later than hut B. The large ditch draining hut C on its northern side stops at the north side of hut B, suggesting that hut B may have been in use when this ditch was dug, and the ditch was therefore incomplete. It is possible but not certain that the final scheme for the site was not finished. This would explain the fact that the large ditches around hut C do not drain correctly. It would also offer an explanation for the fact that the hearth of hut A had been unused. Note, however, that the largest amount of pottery on the site came from the floor of hut A. Hut C does not seem to have been used for long since its hearth is lightly burnt only in one place. An interesting feature of the huts is the absence of post holes. In all probability wooden posts were used to support the roofs since dry stone walls are poor load-bearing structures. The posts could well have been erected on the stone floors and held upright by bracing.¹

Other prehistoric circular huts are known in the district, none as well preserved as those at Percy Rigg. There are paved stone huts at Wayworth settlement and Crag Bank both within 2 miles as shown on Fig. 2 but there are no finds by which to date them. Another ditched site has been found in a ploughed field at Guisborough Park Farm on the Eston Hills at NZ 597171, by study of aerial photographs (Meridian Air maps Survey for Teesside Nos. 11, 67, 100), and a saddle quern has been found on the surface. Other ditched sites have been recognised on air photographs in the vicinity, but this probably represents the nearest parallel to the Percy Rigg huts known in the Cleveland district.

The Percy Rigg huts are typical of late prehistoric huts in Britain; the fact that they are constructed of stone, whereas many northern Iron Age huts are of wooden construction, is more likely to be associated with a geological factor rather than a cultural difference.

¹ A. H. A. Hogg, *The Votadini*: Essays presented to O. G. S. Crawford, 1951, p. 200.

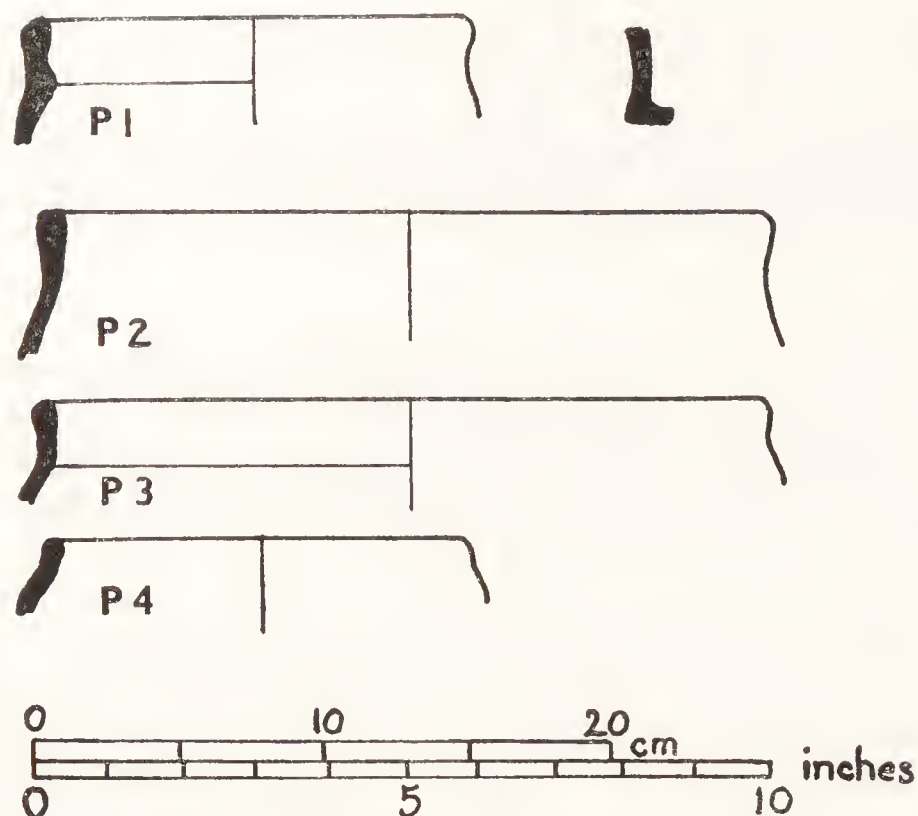


FIG. 7. Pottery from Percy Rigg.

(IV)

THE FINDS

(A) Pottery

(1) Pottery from the floor of hut A.

Three rims of coarse grit ware.

Rim P1 (Fig. 7) – Brownish colour discoloured black on rim. Hard and well fired. Diameter 5 ins. wall thickness $\frac{3}{8}$ in. Interior lip. A similar rim of radius 6 ins. is shown as No. 6, Fig. 55 from Traprain Law¹ and another from Stanwick No. 8, Fig. 12.²

Rim P2 (Fig. 7) – Red interior, black exterior, black core. The pottery rather porous at the surface. Diameter 10 ins. Thickness $\frac{1}{4}$ in. Straight rim.

Rim P3 (Fig. 7) – Red interior, brown/black exterior. Diameter 10 ins. Thickness $\frac{3}{8}$ in. Straight rim. A similar rim is shown as No. 17, Fig. 12, from Stanwick.²

Twenty-five sherds varying in colour, and in thickness from $\frac{3}{16}$ in. to $\frac{5}{8}$ in.

One body sherd grey ware much superior in quality and firing to the other material from this hut. Diameter 4 ins., thickness $\frac{5}{8}$ in.

(2) Pottery from hearth I. 30 fragments of coarse gritted ware. Thickness ranges from $\frac{3}{16}$ in. to $\frac{1}{2}$ in. Black core-reddish grey surfaces.(3) Pottery from hearth II. Coarse gritted ware. 1 base diameter 4 ins., thickness $\frac{1}{4}$ in. (Thumb print?) 31 other sherds thickness $\frac{1}{4}$ in. to $\frac{1}{2}$ in.(4) Pottery from hut D beneath the paved floor. 2 base fragments of coarse gritted ware diameter 4 ins., wall thickness $\frac{1}{4}$ in. 10 fragments rather friable gritted ware.

(5) Pottery from ditch of hut E

Rim P4 (Fig. 7) – Coarse gritted ware diameter 5 ins., thickness $\frac{3}{8}$ in.

(6) Pottery from deep ditch of hut C. Large piece (4 ins. by 5 ins.) of coarse pottery, thickness $\frac{1}{2}$ in. Found in two pieces. Possibly the wall of a large urn near the base, diameter at base 6 ins. Black core and interior surface, red buff exterior surface.

(7) Pottery from ditch of hut D. Coarse gritted ware. Thickness 1 in. buff exterior, black brown interior. Grey core. Since hut D was earlier than hut B, and probably earlier than A and C, we can conclude that the pottery from beneath the floor of hut D was early, and the pottery found in the floor of hut A was later in the occupation time scale.

The pottery from this site has been compared with that recovered from two other neighbouring Iron Age sites, namely the Eston Nab Hill fort (F. A. Aberg 1967–1968), and the enclosure on Great Ayton Moor (B. N. Tinckler 1961). The Percy Rigg pottery is generally much thicker than that from the other two sites, much darker brown in colour with considerably less red coloration, and much softer. It was clearly coarser and less highly fired than that from the other sites. The grey

¹ A. H. A. Hogg, *The Votadini: Essays presented to O. G. S. Crawford*, 1951, p. 200.

² Sir Mortimer Wheeler, *The Stanwick Fortifications*, Society of Antiquaries Research Report xvii, 1954.

sherd from hut A of superior quality is, however, very similar in texture to a sherd from Great Ayton Moor. However, no definite stylistic similarities could be seen between the rims and bases of the Percy Rigg pottery and those found at the other two sites. A further point of interest arose from a microscopic examination of thin sections of the coarse grit in the Percy Rigg pottery. This showed that much of the grit was igneous rock from the nearby Cleveland Dyke, indicating that the pottery was of local origin.

(B) *Stone and other materials*

- (1) Rubbing stone No. 1 (Fig. 8). Buried in the floor of hut E. Oval shape length 14 ins., width 7 ins., thickness about 4 ins. Made from fine grained local sandstone, grey colour. Worked with a pointed tool on unrubbed surfaces, convex rubbing face.
- (2) Rubbing stone No. 2. From deep ditch of hut C, near the road. It comprises the broken half of an oval rubbing stone of local sandstone, slightly burnt. Width 9 ins., thickness $2\frac{1}{2}$ ins., longest length 6 ins. Convex working face.
- (3) Rubbing stone No. 3 from floor of hut C, where it had been used as a paving stone. Working surface not very smooth, possibly it was little used. Length $13\frac{1}{2}$ ins., width 7 ins., thickness $2\frac{1}{2}$ ins. Fine grained local sandstone, grey colour.
- (4) Fragments of rubbing stones from hearth II.
 - (a) Fragment No. 4. Local sandstone concave working surface, well worn, but has a dressed lower surface. It is doubtful whether this is the lower saddle quern or the rubbing stone. Length 6 ins., breadth 3 ins., thickness 3 ins.
 - (b) Fragment No. 5. Very fine grained buff local sandstone. Approximately cubic. Length $4\frac{1}{2}$ ins., breadth $4\frac{1}{2}$ ins., thickness 4 ins. Possibly fragment of a saddle quern.
 - (c) Fragment No. 6. Coarse grey local sandstone. Length 5 ins., width 5 ins., thickness 3 ins. Fragment of a rubbing stone.
- (5) Rubbing stone No. 7. Fragment of a rubbing stone, very coarse gritty sandstone, not of local origin, probably glacial. Length 8 ins., width $6\frac{1}{2}$ ins., thickness 3 ins. From the deep ditch on northwest side of the site.
- (6) Rubbing stone No. 8. From the floor of hut C where it had been reused as a paving stone. Fine grained grey local sandstone, well used. Length 12 ins., width $5\frac{1}{2}$ ins., thickness 4 ins. Roughly shaped and dressed.
- (7) Saddle quern No. 9. From the ditch of hut D. A half of a complete quern. Local fine grained sandstone. Length 8 ins., width 8 ins., thickness $2\frac{1}{2}$ ins. Convex face, well worn. Roughly shaped on unrubbed surface.
- (8) Beehive quern No. 10 (Fig. 9). Lower stone of beehive quern, partly buried in the side of the ditch of hut E. Fine grained local sandstone. Face well worn and smooth, with small central hole. Approximately rectangular, 12 ins. length, $10\frac{1}{2}$ ins. width, $7\frac{1}{2}$ ins. thick. Roughly shaped at base and dressed on sides with a pointed tool.
- (9) Door Pivot No. 11 (Fig. 10). Found in the ditch near the entrance of hut C. Approximately oval, length 20 ins., width 11 ins., thickness $4\frac{1}{2}$ ins. Pivot hole $3\frac{1}{2}$ ins. diameter, cone shaped, 2 ins. deep. Similar pivots were found, one in situ, in the Romano British circular stone huts at Milking Gap, North Cumberland.¹
- (10) Flint scraper from ditch on northwest side of hut C.
- (11) Leaf shaped arrowhead to the east of hut E (Fig. 11) on the land surface.
- (12) Whetstone 5 ins. long by 2 ins. wide (Fig. 11).
- (13) Fragment of jet bangle from ditch to west of hut C.
- (14) Fragments of charcoal from the site were identified as poplar and hazel by Prof. G. W. Dimbleby. [A saddle quern was also found re-used as a foundation stone in the wall of hut B. This was unfortunately stolen from the site].

V

DISCUSSION AND CONCLUSIONS

There were at least two phases of building on the site, and probably three:—

1. Building of huts D and E;
2. Building of hut B. Disuse of D and E;
3. Building of huts A and C.

There is some evidence that the building in the final phase was unfinished, as evidenced above, but this is not entirely certain.

¹ H. E. Kilbride-Jones, *Arch. Aeliana*, xv (1938), pp. 303–350.

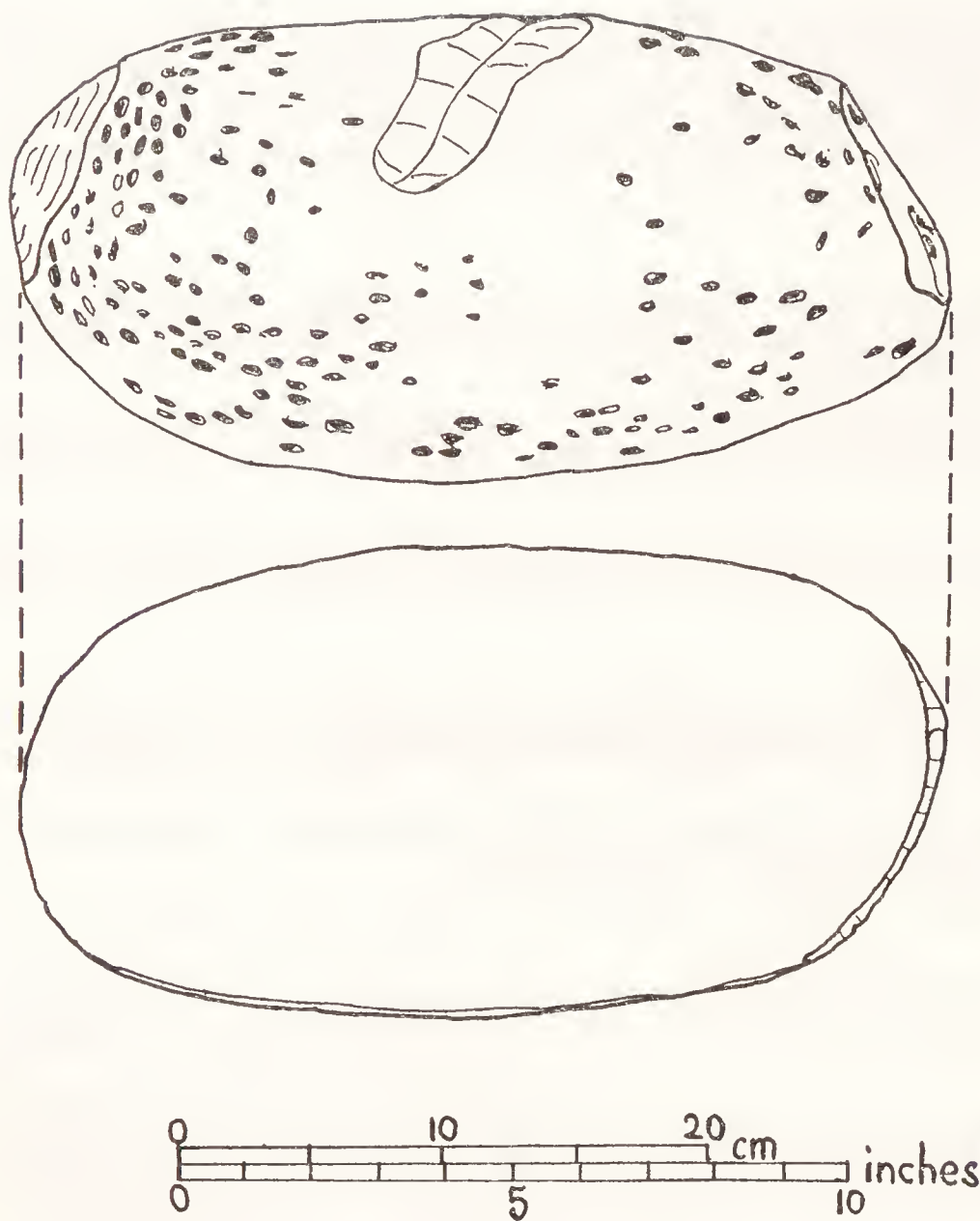


FIG. 8. Saddle quern (upper stone) no. 1.

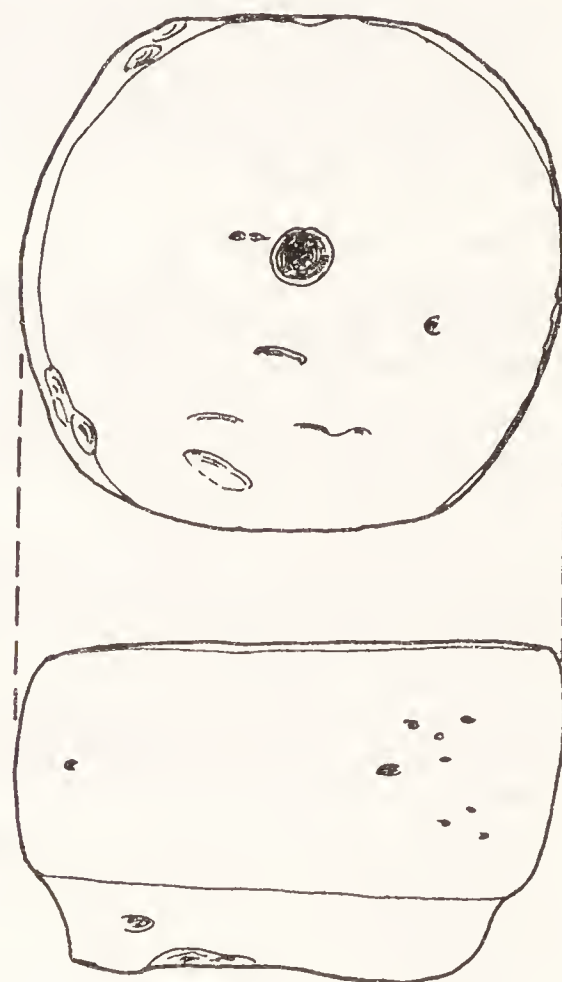


FIG. 9. Rotary quern (lower stone) no. 10.

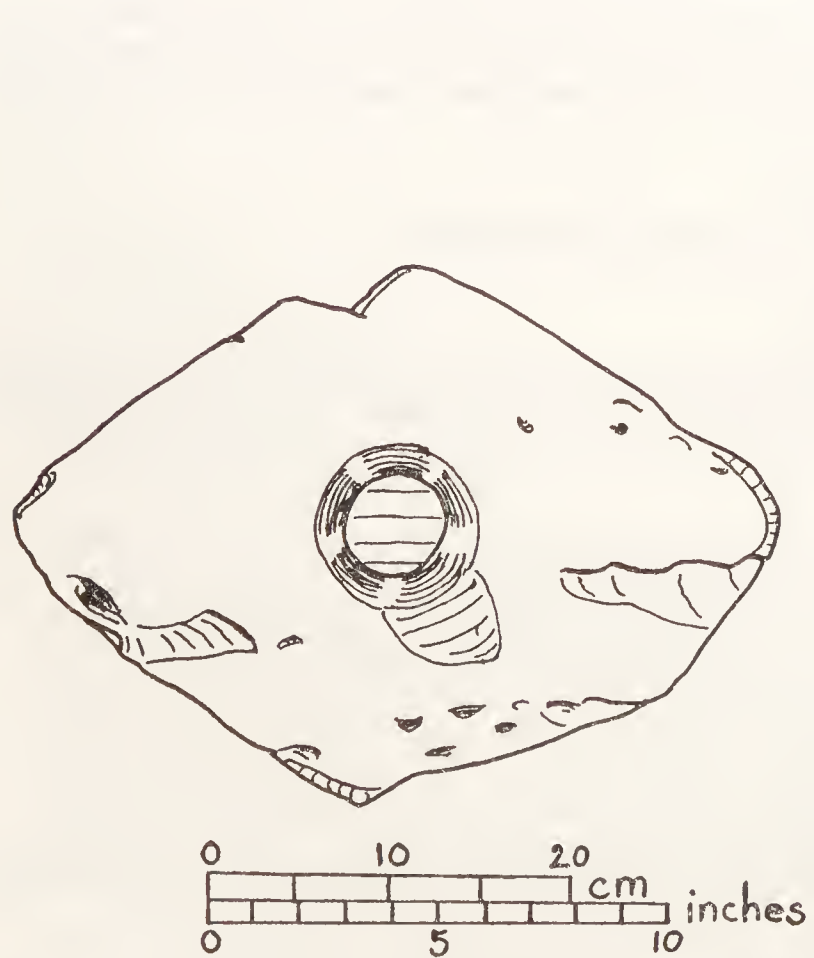


FIG. 10. Door pivot.

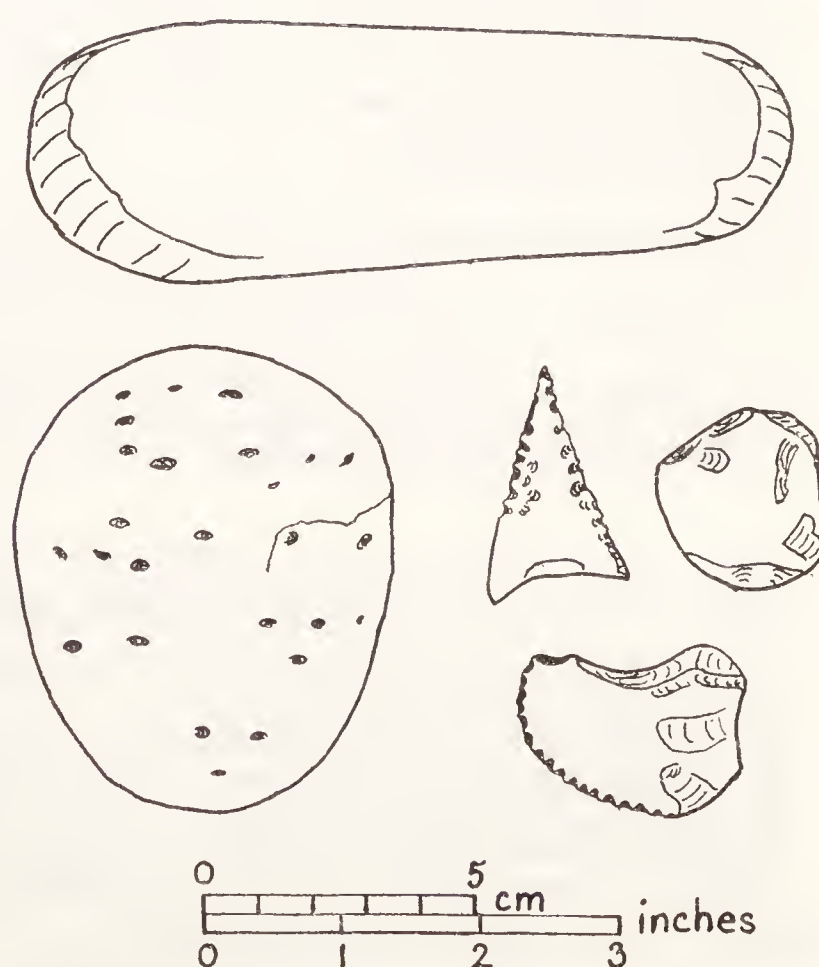


FIG. 11. Whetstone, pot boiler, flint implements.

The pottery from the site suggests an Iron Age dating, being generally similar to the coarse gritted ware found by F. Elgee and F. A. Aberg in the Iron Age fort at Eston Nab. It was, however, coarser and less well fired. The pottery cannot be used for precise dating owing to the uncertain chronology of Iron Age ceramics in the area, but it clearly belongs to the 'immediately pre-Roman undecorated' category of Yorkshire Iron Age pottery.¹ Different types of ware, from the coarse material below the floor of hut D to the superior quality of one grey sherd on the floor of hut A suggests occupation over a fair period of time. This grey body sherd indicates that the site was partly contemporary with a nearby ditched enclosure at Great Ayton Moor. The finding of seven flat querns and a beehive quern suggests a fair length of occupation before the introduction of rotary querns, and certainly shows that occupation continued into the late Iron Age. That it did not continue much into Roman times is shown by the marked contrast with the finds from the Romano-British settlement at Pale End, about 1 mile away from the present site.² The huts are certainly unique at present in the North Yorkshire Moors, and they are of good construction by comparison with other northern Iron Age huts. The occupants were certainly farmers, and the existence of cereal farming in Iron Age times has been shown in the vicinity on Great Ayton Moor by pollen analysis.³

Recent field work and aerial photography in the vicinity of the Eston Nab Hill Fort have revealed more late prehistoric settlement in the northern part of the Cleveland Hills than had previously been recognised. It now seems that the Percy Rigg settlement was part of a sizeable Iron Age occupation in this part of Yorkshire, possibly by a sept or clan of the Brigantes centred on the Eston Hill Fort.

I thank Mr. R. Turton and Mr. J. Sutcliffe for permission to excavate, Mr. R. H. Hayes for help and advice throughout, and Drs. R. E. Goddard and D. A. Spratt for help with plans and manuscript.

¹ I. M. Stead, *Proceedings Prehistoric Society*, 34 (1968), p. 164.

² R. H. Hayes, *Yorkshire Arch. Journal*, xli (1966), 687-700.

³ R. H. Hayes, *The Chambered Cairn on Great Ayton Moor*, Scarborough and District Archaeological Society, Report No. 7, 1967.

INDUSTRIAL EVIDENCE FROM THE VILLA AT LANGTON, EAST YORKSHIRE

By IAN H. GOODALL

SUMMARY

Crucible fragments, iron slag and a bloom recently found among the finds from the Roman villa at Langton are discussed, and a stone disc from the well is identified as a mould used for casting pewter plates. Other stone moulds from Roman Britain for casting pewter plates and dishes are discussed, and industrial evidence from other villas in East Yorkshire is noted.

The Roman villa at Langton, East Yorkshire, lies some three miles southeast of the fort and town of Malton. Excavated and published by Drs. Kirk and Corder, the site comprised a ditched native farmstead which was succeeded by a villa whose principal occupation was in the third and fourth centuries.¹ The writer has recently had occasion to re-examine the Langton material in the Roman Malton Museum² and this, together with the discovery of crucible fragments and slag by Mr. T. G. Manby, in storage boxes labelled *Langton* in a locked cabinet, appears to afford new information about the villa's economy. The new finds were found with other published Langton items, and there is no reason to doubt their origin from the villa dig.

THE CRUCIBLES

All five crucible fragments are of the conical form, one of the typical forms of Roman crucible, but none of the rims retains any indication of a pouring spout. The bodies are all of a fine but hard light-grey fabric. Several fragments have cracks caused by heat stress during use, and whilst one fragment bears indications of relining, in others the presence of a vitrified coating in cracks in the body may imply that they had shattered in use. The vitreous coat on the exterior of the fragments, which becomes thicker lower down the body of each, is generally dark red or green in colour. Copper slags often look like red enamel,³ and despite the fact that there has been no analysis of any deposit, it is probable that the crucibles were used for melting copper or copper alloys. There is no indication on the external deposits of any fragment of the use of a ring-shank to hold the crucible during pouring, and it may be suspected that tongs were used for at least this process.

The conventions used in Figure 1 are those suggested by Alcock.⁴

Fig. 1, 1. Malton Museum: R.31.126.2. Rim and side of a crucible in the fine but hard, light-grey fabric characteristic of all the fragments. The vitrification on the exterior of the fragment thickens and becomes more intense lower down the side, which shows signs of external heat-cracking. There is a very slight trace of deposit on the inside of the fragment.

Fig. 1, 2. Malton Museum: R.31.126.3. Rim fragment of a crucible. The exterior has a thin, lumpy red and dark green vitreous coat, whilst on the inside are deposits of metallic dross.

Fig. 1, 3. Malton Museum: R.31.126.1. Rim and side of a crucible with external red and green vitrification increasing in thickness towards the break. The interior has only a slight metallic deposit.

¹ Corder, P. and Kirk, J. L., *A Roman Villa at Langton, near Malton, E. Yorkshire* (1932). Roman Malton and District Report No. 4.

² Goodall, I. H., 'The Roman Villas of East Yorkshire'. Undergraduate thesis, Department of Archaeology, University College, Cardiff.

³ Tylecote, R. F., *Metallurgy in Archaeology* (1962), 137.

⁴ Alcock, L., *Dinas Powys* (1963), 143-146.

The pottery from the site suggests an Iron Age dating, being generally similar to the coarse gritted ware found by F. Elgee and F. A. Aberg in the Iron Age fort at Eston Nab. It was, however, coarser and less well fired. The pottery cannot be used for precise dating owing to the uncertain chronology of Iron Age ceramics in the area, but it clearly belongs to the 'immediately pre-Roman undecorated' category of Yorkshire Iron Age pottery.¹ Different types of ware, from the coarse material below the floor of hut D to the superior quality of one grey sherd on the floor of hut A suggests occupation over a fair period of time. This grey body sherd indicates that the site was partly contemporary with a nearby ditched enclosure at Great Ayton Moor. The finding of seven flat querns and a beehive quern suggests a fair length of occupation before the introduction of rotary querns, and certainly shows that occupation continued into the late Iron Age. That it did not continue much into Roman times is shown by the marked contrast with the finds from the Romano-British settlement at Pale End, about 1 mile away from the present site.² The huts are certainly unique at present in the North Yorkshire Moors, and they are of good construction by comparison with other northern Iron Age huts. The occupants were certainly farmers, and the existence of cereal farming in Iron Age times has been shown in the vicinity on Great Ayton Moor by pollen analysis.³

Recent field work and aerial photography in the vicinity of the Eston Nab Hill Fort have revealed more late prehistoric settlement in the northern part of the Cleveland Hills than had previously been recognised. It now seems that the Percy Rigg settlement was part of a sizeable Iron Age occupation in this part of Yorkshire, possibly by a sept or clan of the Brigantes centred on the Eston Hill Fort.

I thank Mr. R. Turton and Mr. J. Sutcliffe for permission to excavate, Mr. R. H. Hayes for help and advice throughout, and Drs. R. E. Goddard and D. A. Spratt for help with plans and manuscript.

¹ I. M. Stead, *Proceedings Prehistoric Society*, 34 (1968), p. 164.

² R. H. Hayes, *Yorkshire Arch. Journal*, xli (1966), 687-700.

³ R. H. Hayes, *The Chambered Cairn on Great Ayton Moor*, Scarborough and District Archaeological Society, Report No. 7, 1967.

INDUSTRIAL EVIDENCE FROM THE VILLA AT LANGTON, EAST YORKSHIRE

By IAN H. GOODALL

SUMMARY

Crucible fragments, iron slag and a bloom recently found among the finds from the Roman villa at Langton are discussed, and a stone disc from the well is identified as a mould used for casting pewter plates. Other stone moulds from Roman Britain for casting pewter plates and dishes are discussed, and industrial evidence from other villas in East Yorkshire is noted.

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³ Tylecote, R. F., *Metallurgy in Archaeology* (1962), 137.

⁴ Alcock, L., *Dinas Powys* (1963), 143-146.

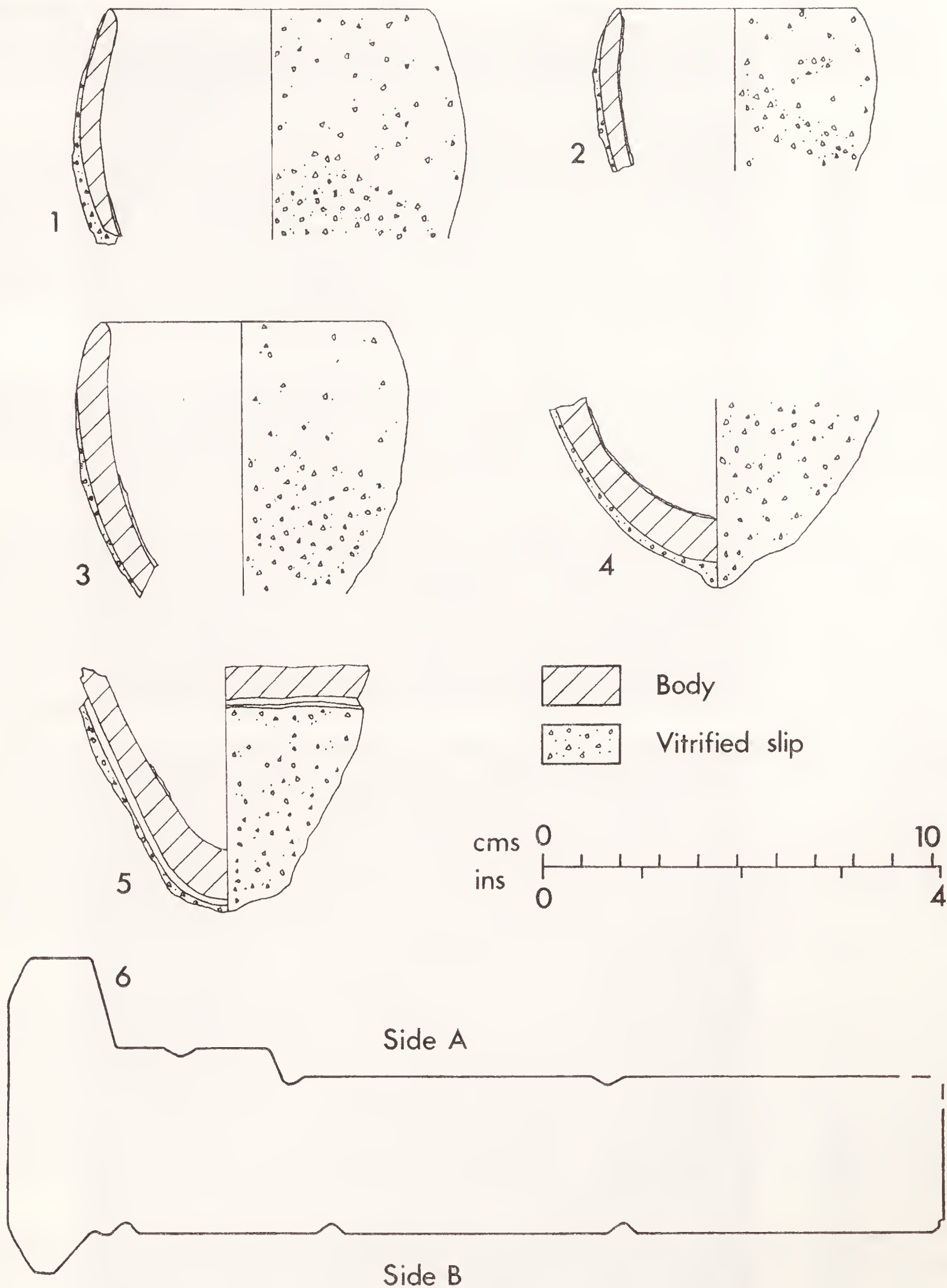


FIG. 1. Langton crucibles and stone mould.

Fig. 1, 4. Malton Museum: R.31.126.5. Base and side of a crucible. The exterior has a dark, cellular vitrified coating which forms a drip at the base. The interior, which is badly cracked, has a thin metallic deposit. The vitreous coating has intruded into part of the body of the crucible, and no doubt contributed to its breaking.

Fig. 1, 5. Malton Museum: R.31.126.4. Base and side of a crucible. In section the crucible can be seen to have a more complex structure than the other fragments. A very thin vitrified slip on the exterior of the main crucible body is covered by a regular layer of similar fabric to the main body.

A thicker vitrified coat has been deposited on this layer, which must be a relining, strengthening coat. The thin vitreous coat which it seals indicates that the crucible had been used at least once before it became necessary to strengthen it. Inside the crucible base is a darkened area and also specks of metallic deposit. At Heronbridge, Cheshire, some crucibles had been patched with clay.¹

THE SLAG

In addition to the crucible fragments, several lumps of slag were found. Mr. G. C. Morgan reports that one lump, weight 404.5 gms., was vesicular iron slag of fayalite type with traces of spongy iron (now corroded). It is probably a poor bloom showing no signs of working. There are also three lumps of tap slag, total weight 70.5 gms. Tylecote² has stressed the difficulty of distinguishing iron-working cinders from some smelting slags, but the presence of tap slag at Langton clearly indicates that the smelting of iron was carried out there, and the bloom might perhaps be further confirmation.

THE PEWTER MOULD

Amongst the stone objects from the villa site, Corder recorded a circular moulded stone found in fragments in the well. He described the stone and included a photograph, after restoration, of one of its faces, but was unable to suggest its use.³ There can be little doubt that the stone is in fact a mould for use in the casting of pewter plates.

The stone (Pl. I; Fig. 1, 6) is made from a very fine-grained, soft, white limestone and has been turned on a lathe. It is $19\frac{1}{4}$ ins. in diameter, $3\frac{1}{4}$ ins. thick at the flange, and $1\frac{5}{8}$ ins. thick in its central part.⁴ In the centre of side B is a hole for the chuck of the lathe; the centre of side A has unfortunately been lost. Both sides have concentric, circular V-sectioned grooves, whose diameters differ on each side. On side A the grooves have diameters, taken from the base of each groove, of $6\frac{7}{8}$ ins. and $13\frac{1}{4}$ ins. At this point the flat surface of the mould is stepped up $\frac{1}{4}$ in., making a total thickness of $1\frac{7}{8}$ ins., and the final groove is $15\frac{3}{4}$ ins. in diameter. After a narrow level zone, the side of the mould slopes steeply up to the comparatively wide, flat surface on top of the flange. Side B, in contrast to A, is quite flat, with grooves $6\frac{1}{4}$ ins., $12\frac{1}{2}$ ins. and $16\frac{5}{8}$ ins. in diameter. At the base of the more gently sloping rim there is a further groove $17\frac{3}{8}$ ins. in diameter, but it must be noted that this groove is irregularly cut and may only represent a slight overcutting of the original mould. From this groove the rim slopes fairly gently up to the flat surface of the flange. These flat surfaces on each side of the flange acted as the seating of the upper half-mould which was used in conjunction with each moulded lower part. The flange has chamfered edges to the outside, and its thickness on side A must be to counteract any weakness inherent in the deep rim.

The well of the Langton villa,⁵ 44 ft. 6 ins. deep, lay in a courtyard around part of which stood the dwelling house and some farm buildings. Below a depth of 20 ft. it had been deliberately filled with broken stones, tiles, tesserae and domestic rubbish, and high in this filling, at about 22 ft., most of the fragments of the stone mould were found. This filling, effectively sealed by a 6 ft. 6 ins. thick black layer, taken to indicate a fire in at least part of the settlement, contained pottery of the late fourth century. From its context, therefore, it is reasonable to infer that the mould was in use in at least the later fourth century.

The Langton mould is one of a number known from Roman Britain for use in casting pewter tableware. Such moulds for casting plates, dishes, or bowls, were used by fitting an upper half-mould of the appropriate size and shape over the moulded lower half, and securing the two together using, either singly or in combination, dowels, clamps or binding. The molten pewter would have been poured through a hole into the gap between

¹ Hartley, B. R., 'Bronze Worker's Hearth', *Cheshire Archaeol. J.*, xli (1954), 5.

² Tylecote, R. F., *op. cit.* (1962), 176.

³ Corder, P. and Kirk, J. L., *op. cit.* (1932), 75, Fig. 22.

⁴ Corder's measurements of the thickness of the mould within the flange are in error by $\frac{1}{2}$ in., and the varying positions from which he took the diameters of the grooves have introduced further misleading readings. I am very grateful to Mrs. E. King and Miss M. Moore for re-checking my readings against the actual mould.

⁵ Corder, P. and Kirk, J. L., *op. cit.* (1932), 49-55.

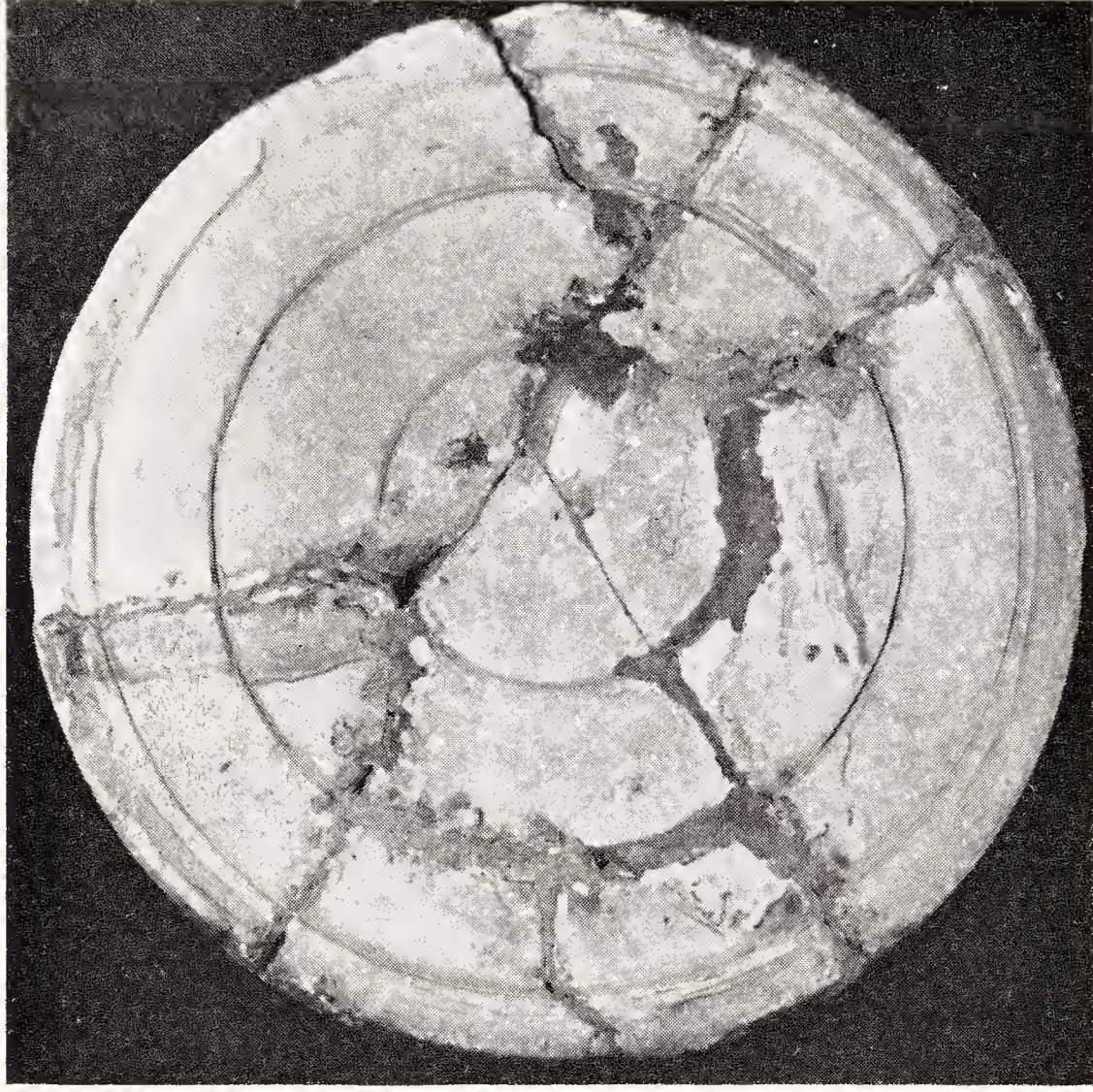


PLATE I.
Langton stone mould. Sides A and B.

the two half-moulds: unfortunately the flange of the Langton mould is considerably damaged, and it is not possible with any certainty to observe any pouring hole or locating marks for the binding. To aid the casting process, and ease any stresses likely to be set up within the stone mould, it is probable that this was warmed before receiving the molten metal. After the metal had solidified, the mould would have been dismantled and the rough casting have been trimmed. Any excess pewter around the rim, including the riser formed in the pouring hole, would normally have been cut off, and it is at this stage that the irregular support ring cast at the base of the rim of side A of the Langton plate could have been removed. The trimming would have been finished on a lathe, and the plate polished on both sides.

It would have been possible, either by using a number of different upper half-moulds each covering only certain parts of the underside of the mould, or by trimming down a complete casting, by flattening the edge and turning it over to form a thickened rim, to have used the Langton mould to cast virtually all the main rim types discerned among Romano-British pewter.¹ The underside mouldings of side A offer the greatest scope for casting plates of differing sizes and types, from one with two support rings and a flat section, to one with three support rings and a slight bouge, or wall, above the middle ring.

It is unfortunate that none of the upper half-moulds fitting the Langton mould has survived to indicate whether it was used for single or multiple castings. A multiple stone mould for casting small pewter dishes is known from St. Just, Penwith, Cornwall.² This comprises two stone bowls, the larger of which, $5\frac{3}{4}$ ins. in diameter, is moulded on the inside, and into which fits the smaller bowl, itself moulded both inside and outside. An appropriately cut third stone would have fitted into this, and the mould would have cast two pewter dishes. There is a shallow moulding on the underside of the larger, lower stone which is probably part of another mould. Lacking the upper insert mould, it is impossible to know whether this was itself moulded on its top surface for the casting of a further, yet smaller dish. The pouring hole is clearly visible on the St. Just mould, and that on the Langton specimen must have been similar. The Langton mould is much larger and heavier than the St. Just multiple mould, and it seems most probable that the upper half-moulds used in conjunction with each side of it would have been worked on one side only. If an attempt was made to cast more than a single plate from each side of the mould, the bound mould would have been most unwieldy, and the operation technically quite demanding.

A mould more closely resembling that from Langton comes from the Roman settlement at Lansdown, near Bath, Somerset.³ Of white lias, largely complete, 18 ins. in diameter, with two concentric grooves, it was found with a number of other mould fragments, including some for pewter dishes. Commenting on the Lansdown moulds, W. H. St. John Hope referred to 'stone discs of (this) kind found about the *Basilica* and *forum* in *Insula VIII* at Silchester excavated in 1892', and exhibited drawings of them by Mr. Fox.⁴ These drawings⁵ indicate that the moulds, four of which were for casting pewter plates or dishes, came from *Insula IV*, not *VIII* as St. John Hope mistakenly stated. One of the moulds, number 4, is an upper stone from a composite mould similar to that from St. Just. 14 ins. in diameter, its upper surface is moulded for a flat plate with two concentric support rings, whilst its lower surface is cut to fit into a mould for a bowl with gently curving sides. One of the other moulds, number 1, closer in affinity to that from Langton, may also be from a composite mould, but the other two Silchester moulds are moulded on one side only. A fifth mould fragment from Silchester, unnumbered on the drawings by Fox, is in the form of a double-stepped cone with concave sides towards the broken apex. $7\frac{3}{4}$ ins. in diameter and now $5\frac{1}{2}$ ins. high, it might be the inner half of

¹ Peal, C. A., 'Romano-British Pewter Plates and Dishes', *Proc. Cambridge Antiq. Soc.* lx (1967), 25.

² Brown, P. D. C., 'A Roman Pewter Mould from St. Just', *Cornish Archaeol.* 9 (1970), 107-110.

³ Bush, T. S., *Proc. Soc. Antiq. Lond.* 2nd series, xxii (1908), 34-38.

⁴ *Ibid.*, 38.

⁵ Society of Antiquaries, London, Fox Collection Box 4.64. Signed George E. Fox, Sept. 1892. I am very grateful to Mr. G. C. Boon for showing me a copy of these drawings.

a mould for a small bowl or dish. A mould for such a bowl is known from the Romano-British settlement at Westbury, Wiltshire.¹ The lower part of this freestone mould is 5 ins. high, $5\frac{3}{4}$ ins. in diameter, with a triple stepped moulding 2 ins. in diameter and $2\frac{3}{4}$ ins. deep cut in its upper surface. It has a $2\frac{1}{2}$ ins. thick capstone but, because this is flat on its underside, it seems unlikely that it is the original upper half-mould. From Wroxeter comes a fragment of Old Red Sandstone with two concentric circular grooves and a central chuck mark, whilst from Brampton, Norfolk,² a piece of limestone with curved grooves is known. Three moulds of lias (oolite) are claimed from Oatland Down, Bath, Somerset, but it has only been possible to trace one moulded fragment.³ This fragment is the lower half of a mould for a dish approximately $5\frac{1}{2}$ ins. in diameter, and with one support ring underneath. Cut in the rougher, chisel-marked surface outside the lathe-turned and smoothed mould in the centre there is a rectangular socket $\frac{3}{8}$ in. by $\frac{1}{2}$ in., $\frac{1}{4}$ in. deep. When the mould was in use, a dowel placed in this socket would presumably have been received in a similar hole in the underside of the upper half-mould, thereby accurately locating the two halves. Other fragments of white lias were found on Oatland Down, but it is not certain that they had any moulds cut into them. However, because white lias is not indigenous to the site, it is likely that they were brought for a similar purpose. Several moulds are known from Nettleton, Somerset, and also from Camerton, Somerset,⁴ where they include one for a skillet with a handle, and for a flanged dish.

The main concentration of pewter finds, as Wedlake and Peal have shown,⁵ is in the south of England. However, the Langton mould is not totally isolated. A hoard including a number of pewter plates is known from Manchester, and a flagon from Stokesley, Yorkshire.⁶ There are also the small tin cups, with a very low lead content, from High Rochester and Carrawburgh,⁷ as well as a miscellaneous series of tin-lead alloy objects principally from northern England.⁸

The dating of pewter is made difficult by the frequency of unassociated finds and by the fact that the dated objects which we possess are generally dated to the period of their deposition, not manufacture. The long life which can be expected for pewter further complicates the problem. Although the Langton mould comes from a late fourth-century context, it cannot be known for how long it had been in use before it was thrown into the well. Since most of the fragments were found at about the same level in the well, it might be suggested that it had been thrown in whole, but had broken on impact with the solid filling. The different types of plate which could have been cast by the mould have already been noted, but the various rim types known have wide inter-relationships, and only a small proportion are dated. Langton at least confirms the contemporaneity of the various types.

DISCUSSION

The villas of East Yorkshire lie on, or close to, the slopes of the upland areas, on sites often suited to mixed farming. At Langton, the growing of corn was im-

¹ Cunnington, M. E., 'Notes on the Roman Antiquities in the Westbury Collection at the Museum, Devizes', *Wiltshire Archaeol. Mag.* xxxvi (1909-10), 464-477; *Devizes Museum Catalogue* Pt. II (1911), item 709, Pl. XXXV, 5.

² Wroxeter: Dunning, G. C., *Wroxeter Roman City* (1965), 16; Brampton: Peal, C. A., *op. cit.* (1967), 20.

³ *Ibid.*, 20. I am grateful to Mr. Richard Kent, Kingswood School, Bath, for providing details of the mould finds.

⁴ Nettleton: Brown, P. D. C., *op. cit.* (1970), 108; Camerton: Wedlake, W. J., *Excavations at Camerton, Somerset* (1958), 83-84; *J. Roman Stud.* xlix (1959), 129.

⁵ Wedlake, W. J., *op. cit.* (1958), 87-93, Pl. XIX; Peal, C. A., *op. cit.* (1967), 21-24, Fig. 1.

⁶ Manchester: Lysons, S., *Reliquiae Britannico-Romanae* I (1813), Pt. IV, Pl. V; Stokesley: Hill, D. C., 'Romano-British Vessel from Stokesley', *Yorkshire Archaeol. J.* xxxviii (1952-55), 118-119.

⁷ High Rochester: Richmond, I. A. and Smythe, J. A., 'A Roman Cup of Tin, from High Rochester, Northumberland', *Proc. Univ. of Durham Philosophical Soc.* x (1938), 48-55; Carrawburgh: Richmond, I. A. and Gillam, J. P., 'The Temple of Mithras at Carrawburgh', *Archaeol. Aeliana* 4, xxix (1951), 35, 88-89.

⁸ Tylecote, R. F., *op. cit.* (1962), 68-69.

plied by drying ovens and other structures, whilst bones from the sealed layer in the well included, and suggest the rearing of, horse, ox, sheep and pig. These indications are strengthened by Webster's suggested re-interpretation of the hypocaust structure in the 'bath building' as a corn-drying oven and wool-washing tanks.¹ The crucible fragments, slag and pewter mould are evidence, however, of the further diversity of the villa's economy. The crucible fragments indicate the casting of copper base, presumably bronze, objects, although none of the moulds used has survived. Similarly no structures associated with the smelting of iron ore are known, but the tap slag is sufficiently firm evidence of this. Smithing, indicated by the bloom, would have been carried out at least to ensure the smooth and efficient running of the villa estate, if not also for the commercial manufacture of tools and fittings. The casting of pewter plates, and perhaps other tableware, must have been for commercial sale, but no waste from this activity has been recorded. A lead plug found in the well has been published,² but there are also several miscellaneous, unpublished, lead fragments in the Roman Malton Museum. Roman lead mines are known in West Yorkshire and Derbyshire, but the tin used at Langton must have had a more distant source. An alternative to the alloying of lead and tin on the site to form pewter is suggested by the pewter cakes from the Thames.³ This would have been the most convenient way for pewter to have been obtained, and must surely have been more common in Roman Britain than the evidence has hitherto implied. At Hockwold, Norfolk, were found an ingot which had been remelted, and some other drops of molten metal, most probably a tin/lead alloy.⁴

It is unfortunate that neither the crucible fragments nor the slag come from a known location on the villa site, and that the mould was found in the well. The series of out-buildings located in the excavations would have been used for housing carts and other equipment, for livestock, and for storing grain and other produce, but it is not possible to isolate any particular one which might have been used for industrial activities. The industrial evidence, an aspect of the villa economy generally not well represented, can be paralleled at other sites in East Yorkshire. Iron slag is known from Harpham, and copper and lead slags are claimed. From an ashy layer in the north ditch at Harpham⁵ came four complete, heavily slagged, bronze-working crucibles, several moulds, including three composite clay moulds for studs, and numerous twisted, often incomplete fragments of bronze sheet, wire and objects most plausibly explained as scrap for melting down and recasting. Also associated with this deposit were some iron objects and a brooch of a type known in the second and third centuries. The evidence from Rudston is less conclusive, because the function of the 'Workshop' building is not immediately obvious. Recent excavations have found a fragment of the clay mould for a brooch.⁶ Little else of relevance is known from East Yorkshire, principally because our knowledge is based either on the notices of eighteenth century antiquaries, or on more recent excavations which have often revealed little beyond parts of the dwelling house. It is from the Langton villa that we possess, at the moment, our most representative finds.

ACKNOWLEDGEMENTS

I should like to thank Mrs. R. Hartley, on behalf of the Trustees of the Roman Malton Museum, and Mr. T. G. Manby for allowing me to publish this material. Dr. W. H. Manning kindly commented on the first draft of the text. I should also like to thank Mr. C. A. Peal for discussing the pewter mould, Mr. D. Brown for showing me his article on the St. Just mould prior to its publication; Mr. G. C. Morgan for reporting on the slag; Mr. G. C. Boon, Mr. A. Gunstone, Mr. R. Kent and Mr. M. B. Owen for additional information about other moulds. The photographs were kindly taken by Mr. and Mrs. K. Booth, York, and Mrs. D. G. Booth, Department of Archaeology, University College, Cardiff.

¹ Webster, G., 'Social and Economic Aspects' in Rivet, A. L. F., *The Roman Villa in Britain* (1969), 246-248.

² Corder, P. and Kirk, J. L., *op. cit.* (1932), 52.

³ Tylecote, R. F., *op. cit.* (1962), 68.

⁴ Peal, C. A., *op. cit.* (1967), 23.

⁵ Mellor, E., 'The Harpham Villa', *Yorkshire Archaeol. J.* xxxviii (1952-55), 117-118; Brewster, T. C. M., 'Four Finds from East Yorkshire', *Yorkshire Archaeol. J.* xxxix (1956-1958), 55.

⁶ Unpublished. Information kindly given by Dr. I. M. Stead. For the most convenient bibliography of Rudston see Rivet, A. L. F. (ed.), *The Roman Villa in Britain* (1969), 276, but add Steer, K. A., 'Rudston', *Yorkshire Archaeol. J.* xxxiv (1938-39), 102-103.

EXCAVATIONS IN THE DEFENCES OF THE CITY OF YORK: AN EARLY MEDIEVAL STONE TOWER AND THE SUCCESSIVE EARTH RAMPARTS

By the late J. RADLEY

With a supplementary note by R. M. BUTLER.

INTRODUCTION

The excavations were located near the Multangular or west corner tower of the Roman legionary fortress, on its northwest side (Fig. 1). Today, this sector of the defences is confined between the Public Library inside the fortress and the King's Manor outside it (SE.60045213). The tower, which is the subject of this paper, has been known since 1839, and, after the Royal Commission on Historical Monuments (England) had completed a survey of the city defences, it was apparent that it was anomalous and the only feature for which a reasonable explanation could not be found. Consequently, with the considerable help of York Corporation, the tower was excavated by the writer in 1969 in order to determine its nature, date and relationship to the succession of defences which surround the medieval city. The writer is grateful to the Commissioners for permission to publish this report, which will appear in summary form in the Commission's forthcoming inventory of the city defences.¹

The only detailed account of the discovery of the tower is given in 1839 in the *York Courant*.²

'As some workmen were engaged in making a tunnel from ... St. Leonard's Place ... (to) ... stables in Mint Yard they came to a cavern ... about seven feet from the foundations of the city walls within the city boundary – it is nine yards in circumference, and the height has not yet been obtained, the Recorder having directed the workmen to dig till they ascertain the foundation. On each side of this singular place there is an arched passage, about three feet wide, the beginning and end of which has not yet been ascertained. The walls round it are formed of Roman brick and gritstone, about eighteen inches thick. In this cavern and immediately adjoining, a Roman coin of the reign of Vespasian, two human jaw bones, and several other bones have been found'.

In passing, it may be noted that, in spite of the term 'cavern', it was probably totally earth-filled, and, in the light of the present excavation, the human bones are the only ones from the site. In 1842, Wellbeloved added that the workmen had to break through the Roman fortress wall to get into the tower, and he gave a conjectural reconstruction of the vaulted chamber which he believed to be post-Roman,³ but it was entered on the 1852 O.S. 6 in. plan of York as a Roman chamber. The only other historical information which is possibly relevant comes from an excavation by the City Engineer in 1934. Raine records that a fragment of an interval tower was found 80 yds. from the Multangular Tower,⁴ but elsewhere gives its location as 190 ft. from the Multangular Tower.⁵ If these distances are approximate then the top of the tower may have been exposed, but it is probable that if the distances are accurate, but taken from different points in the

¹ On behalf of R.C.H.M., the writer wishes to express the debt owed to many individuals who contributed to the excavation, in particular to York Corporation's representative, Mr. J. Nursey, for providing the expensive and complex safety equipment. Specialist reports were kindly provided by: B. R. Hartley (Leeds University), Mrs. J. Le Patourel, Mr. D. Bramwell, Dr. J. Jewell (British Museum), the Soil Survey of England and Wales, Dr. I. Anthony (St. Alban's Museum), the Institute of Geological Sciences (Northern Branch), Mr. J. Hurst (Inspectorate of Ancient Monuments, Department of the Environment).

A special debt is owed for unlimited help with documentary sources and architectural problems to my colleagues Dr. E. A. Gee, Mr. H. G. Ramm and Mr. J. H. Harvey. Grants towards the cost of the excavation were given by the Society of Antiquaries of London, by the Yorkshire Philosophical Society, and by the Yorkshire Architectural and York Archaeological Society for which the writer is extremely grateful.

² *York Courant*, 6 June 1839, 4.

³ C. Wellbeloved, *Eboracum* (1842), 52, 58, Pl. III.

⁴ *J.R.S.* xxv (1935), 206.

⁵ *Y.A.J.* xxxii (1934), 4.

Multangular Tower, then the discovery was of another Roman interval tower almost adjacent to the present excavation.

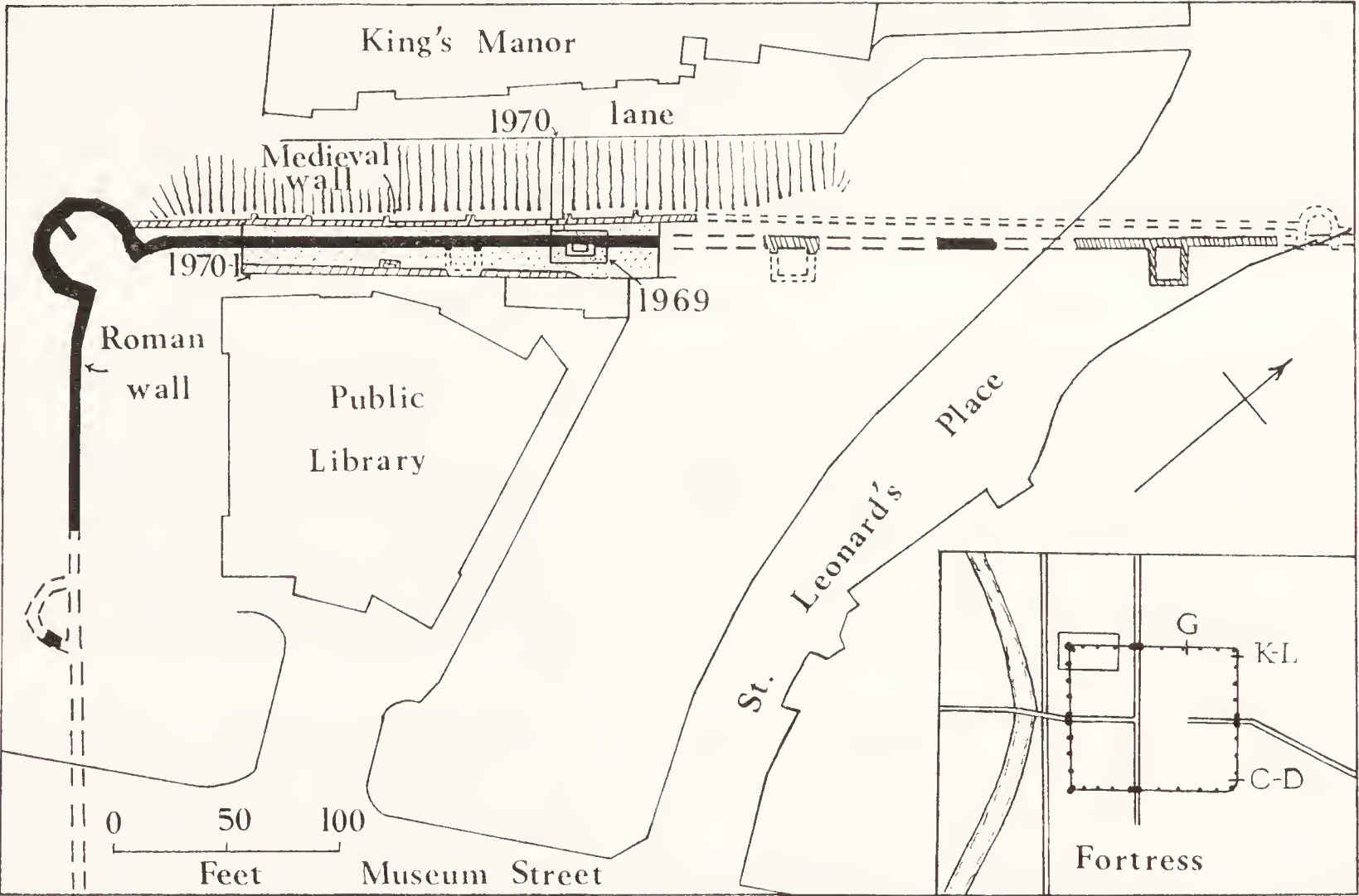


FIG. 1. Location map of excavations and of Miller's Sections C-D, G, and K-L.

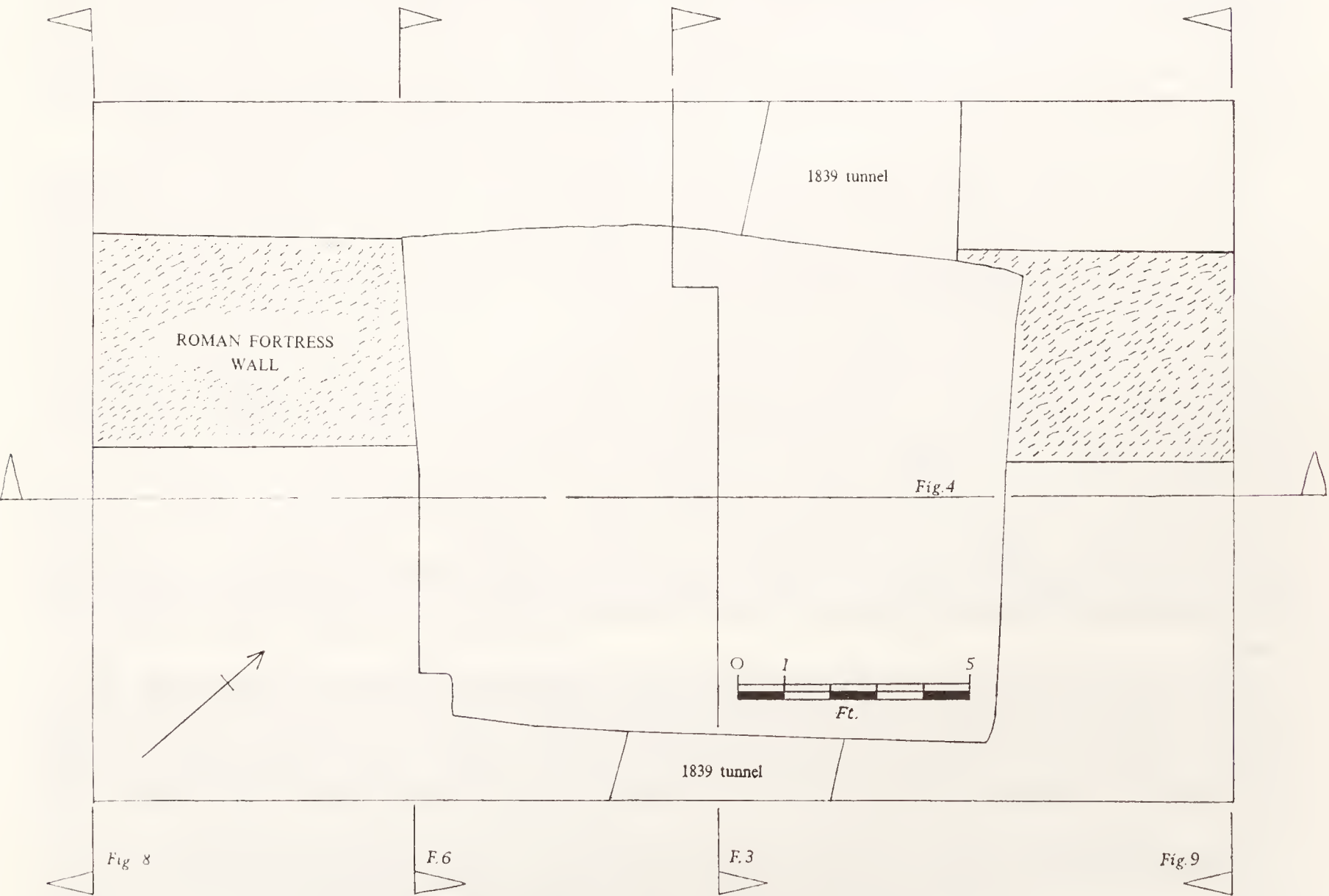


FIG. 2. Plan showing position of sections and elevations.

THE 1969 EXCAVATION

The information obtained in 1969 was severely limited by the restricted area available for excavation. The summit of the medieval rampart, augmented in the nineteenth century with rubble and soil to create a level garden, is supported by a high retaining wall, against which a series of stables had been constructed. Consequently the excavation commenced 10 ft. above the modern street level, and was confined between the medieval city wall and the stables, giving an available area of 25 ft. by 15 ft., which prevented deep excavation between the tower and the medieval city wall. This report describes the various horizons in their sequence of deposition.

THE ROMAN FORTRESS BANK AND WALL

The bank, probably Agricolan, is a uniform feature throughout the excavation, and the best section was exposed on the southwest side of the tower (Fig. 8, Layer 1). At a depth of 21 ft. (46 ft. O.D.), the Roman ground level was exposed as a dark grey sandy horizon. The bank was constructed of alternate layers of clay and sand with no evidence of timber strapping, of occupation débris, or of more than one phase. The layers of sand and clay, probably an attempt to make a stable construction, still stand 10 ft. 6 ins. high, and the whole bank is similar in character to the bank seen near the southwest gate of the fortress,¹ near the Multangular Tower and elsewhere.² The fine grey sand, probably of fluvio-glacial origin, does not occur in later horizons.

Cut into the front of the Agricolan bank is a construction trench for the stone wall which may be Severan or Constantian in date, there being no evidence of the first or Trajanic wall. The wall is 4 ft. 6 ins. to 4 ft. 9 ins. thick and survives to a height of 15 ft. 6 ins. on the northeast side of the tower. The Magnesian Limestone ashlar face is well preserved on the northeastern half of the exposed section but has collapsed on the other half. The inner face has a uniformly rough face of crudely dressed limestone, the lower 5 ft. 6 ins. being on a slightly different alignment to the upper part. The faces are bonded into a core of rubble, tile, and cobble. The parapet is missing but the uppermost two courses of the outer face have a slight batter which may be an indication that this is almost at parapet level. No trace was found in 1969 of the tile band which can be seen on the southwest wall of the fortress, but in 1970 the remains of this were seen 13 ft. below the surface and 3 ft. 10 ins. below the top of the Roman wall at this point.

The construction trench differs from the usual trench in that it is broad, consistently 3 ft. wide and was revetted with stakes, posts and planks. Traces of planks were found under the tower, and on the southeast side of the tower stake-holes for timbers about 3 ins. to 4 ins. in diameter were discovered, and the largest post, fortuitously in the section (Fig. 8) was 7 ins. thick and was traced 10 ft. 6 ins. from Roman ground level. The trench lacks the mortar spills which normally occur at intervals, but has a series of deposits alternately sand without occupation débris, and clay with occupation débris. The pottery throughout the trench-filling was uniform, predominantly orange-red legionary ware, with samian and rusticated grey ware, all of Flavian date except for a few sherds which may date from the middle of the second century (see Appendix 2). Other finds include coins of Nero and Vespasian, a bronze brooch, an almost totally decayed bronze chape, and quantities of animal remains. The absence of anything later in date suggests that the wall is probably Severan when the typical rough construction trench may have been cut back in order to shore up the fine sandy Agricolan bank.

The quality of the masonry on the outer face is markedly different on either side of the tower. On the northeast, the ashlar is firm and stands over 13 ft. high, while the ashlar on the southwest was apparently poorly constructed and has fallen away from the core and only one fragment reaches 10 ft. 6 ins. high, the rest being considerably lower. The

¹ Beneath Barclay's Bank, St. Helen's Square; see Radley, J., *Y.A.J.* xlii (1970) 369–402.

² R.C.H.M., *City of York*, i (1962), Fig. 16; also in S. N. Miller's Sections G and L, *J.R.S.* xviii (1928), 84–6.

1839 tunnel broke into the tower at the junction of these two types of facing, the ashlar being visible only in the northeast side of the tunnel.

The top of the bank and construction trench is covered with a layer of gravel (Fig. 8, Layer 3), which, though undated, may be all that survives of later Roman renovations.

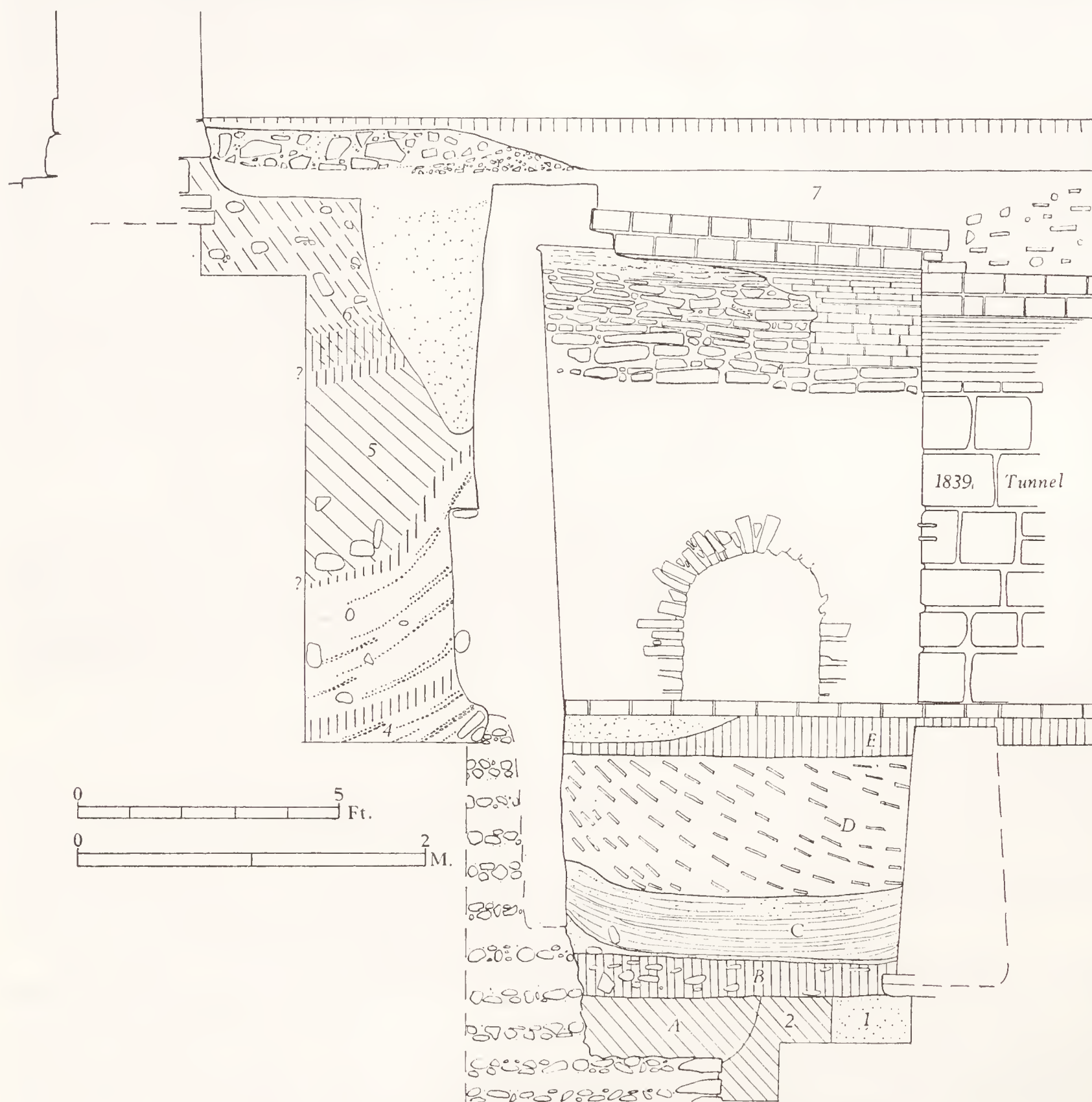


FIG. 3. Cross-section of tower, northwest to southeast.

THE SITING OF THE POST-ROMAN TOWER

As one might expect, no close dating was discovered for the tower, and one of the main arguments for the earliest possible date depends on the condition of the fortress wall at the time of the tower's construction.

The fortress wall had lost its parapet and had decayed to leave a rounded top of uneven height. It is probable that much of the parapet fell outwards and lies below the level of excavation (see below, p. 46) but no evidence of masonry or core débris was found on the surface of the Roman bank, which suggests that it was removed at an early date, together with all evidence of the later Roman period. It seems highly probable that the removal of this material took place as part of the programme of refurbishing the defences which included the construction of the tower. It is surprising, however, that none of this material, or indeed any Roman masonry, was used to build the tower.

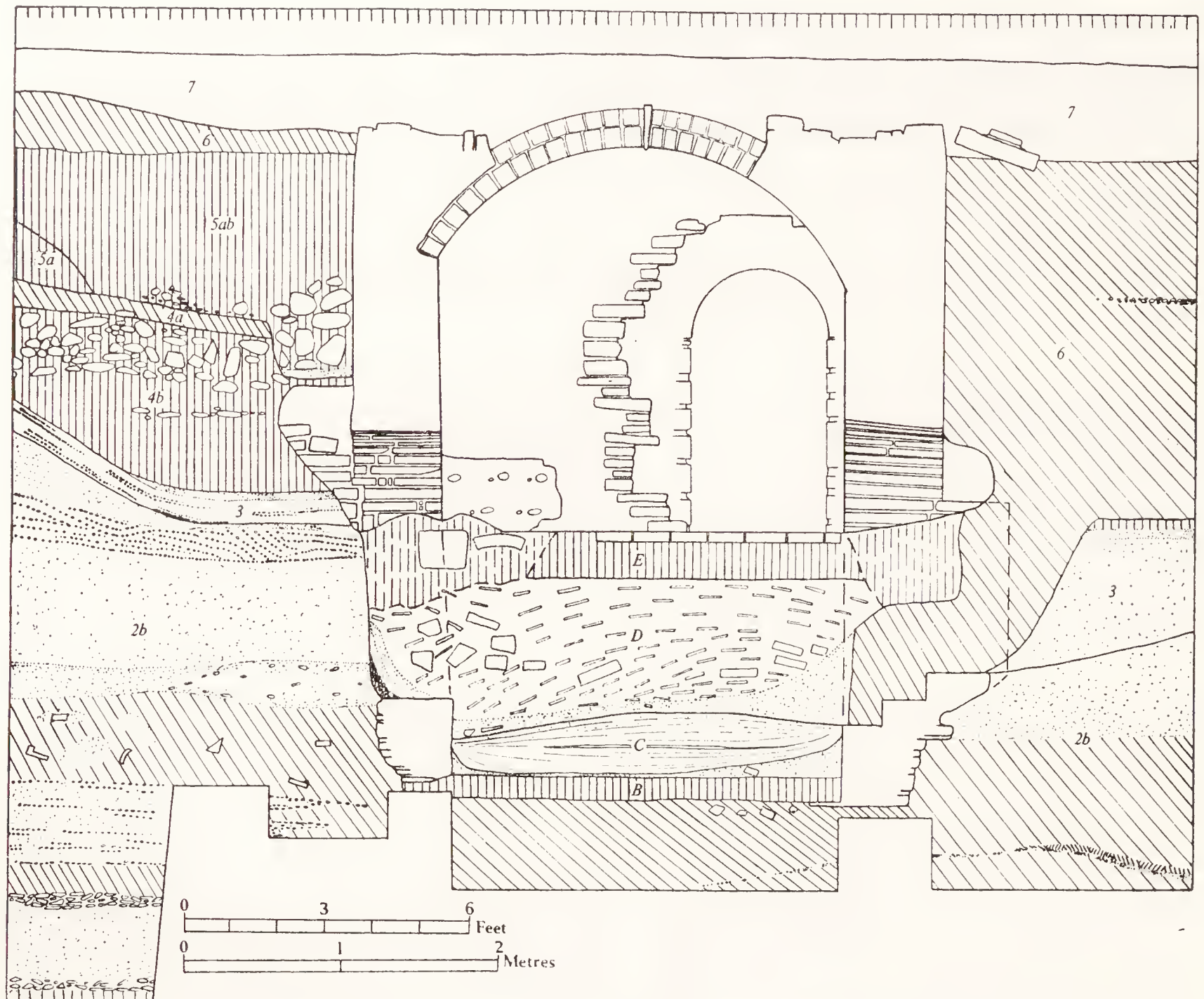


FIG. 4. Cross-section of tower, northeast to southwest.

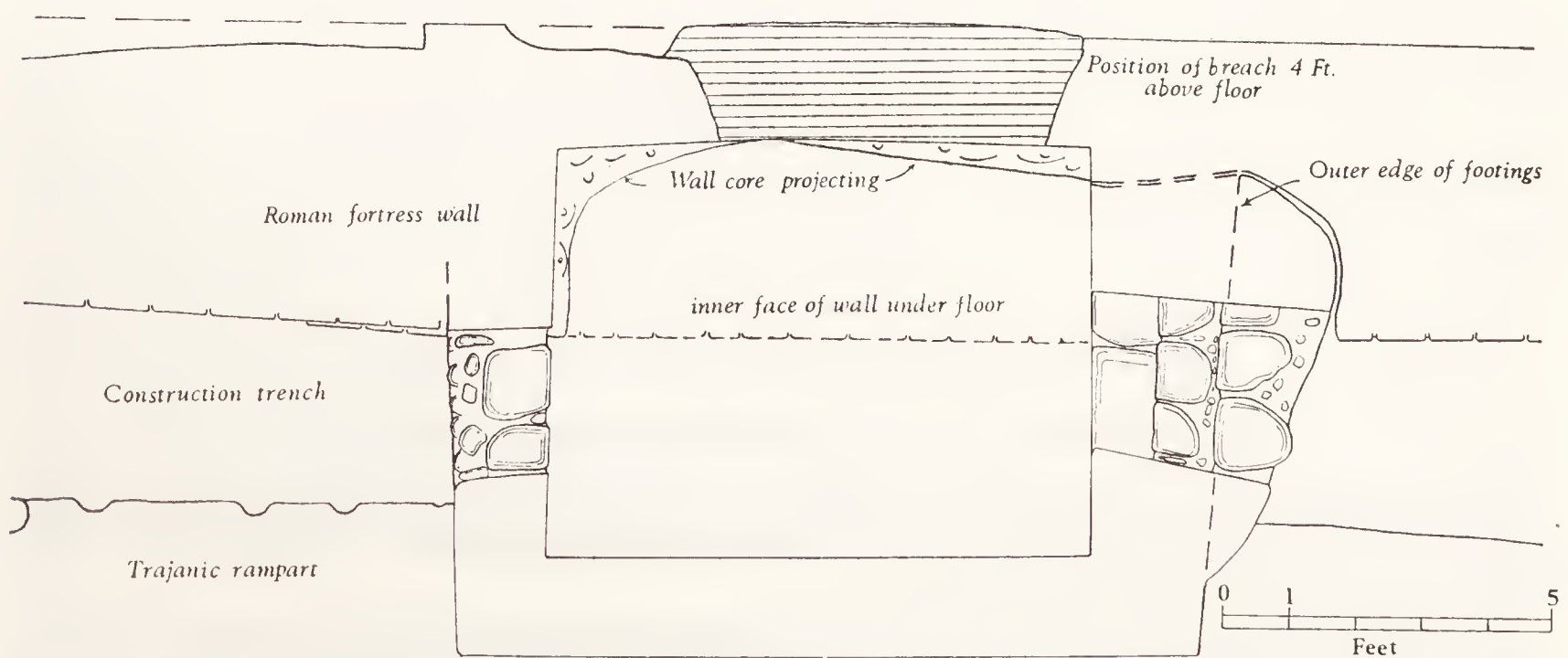


FIG. 5. Plan of tower at 16 ft. below modern surface of rampart.

The choice of this particular location for the tower was determined by a breach in the fortress wall. Although there must be a Roman interval tower nearby (perhaps the one seen by Raine in 1934), the builders saw fit to place the tower astride the breach. This breach can be traced inside the tower where its front wall plugs a gap some 9 ft. deep

and 5 to 6 ft. wide. On the outer face of the tower, only the upper part of the breach has been examined because of the dangerous condition of the masonry and the proximity of the present city wall, but it is clear that the breach was plugged with rubble and mortar which was roughly levelled and has a slight bulge projecting some 10 ins. in front of the line of the fortress wall. The tower was subsequently erected with its front wall almost exactly aligned with the front of the Roman wall – a fact which incidentally demonstrates that the tower preceded any of the post-Roman earthen ramparts to be described below.

Instead of setting the foundations of the tower more or less on the Roman bank and behind the fortress wall, the builders chose to sink the tower some 7 ft. into the bank and into a recess cut into the fortress wall. The foundation level was so deep that access to the entrance on the northeast side was provided by a sloping path, itself a hollow or 'covered' way. The recess which was cut into the wall removed 2 ft. 6 ins. to 3 ft. of facing and core, leaving as little as 1 ft. 6 ins. of Roman wall around the breach, and no trace of this stone and rubble was found in the excavation. The total area prepared for the tower was 12 ft. by 8 ft. As a result, the thin skin of Roman wall, the plugged breach, the decayed nature of part of the ashlar facing, and the erection of the tower partly on and in the Roman wall and partly off it gave the tower an initial weakness, and also points to the restricted knowledge of constructional technique of the builders.

THE ARCHITECTURAL FEATURES OF THE TOWER

Although the tower was to be partly on the Roman wall and partly off it, no attempt was made to provide substantial footings, unlike typical Roman practice. The walls simply begin on the clay floor, with a layer of compact clay 9 ins. thick to cover the material dumped on the bench and to raise it to the required level. Where it was possible to examine the lower parts of the external faces, it was quite clear that they were built from inside, against the Roman bank, there being only sandy mortar as an outer face.

At present, the tower is roughly a 15 ft. cube. The walls are thin, reminiscent of Saxon masonry, measuring 1 ft. 6 ins. to 2 ft. in thickness. The interior is irregularly rectangular, the front wall measuring 8 ft., the back wall 8 ft. 3 ins., and the side walls 6 ft. 2 ins. long. The side walls are vertical externally, and slightly battered internally, but are not bonded inside on to the front wall. There are two opposed doorways in the side walls which have no evidence of door fittings. The stone vaulted roof has a complete arc only at the northwest end but its springing survives along both sides. The top of the vault and all the southeast end was restored with brick in 1839.

The fabric of the walls is unique in York. Whereas Roman buildings were usually made of Magnesian Limestone and/or Millstone Grit, and post-Saxon buildings were also of Magnesian Limestone, the tower is built entirely of a buff-yellow oolitic limestone which is in part massive, and in part flaggy. It weathers unevenly and easily, especially the flaggy stone. The mortar is now very loose and sandy, but in places extrusions of mortar between stones remain quite hard. Elsewhere, mortar seems to have been omitted, giving the appearance of a dry-stone wall.¹ In other places, the exterior retains areas of mortar rendering and it is probable that the whole of the interior was originally rendered.

Where the stones were large enough, they were used as through-stones, and with smaller stones there appear to be outer and inner skins with no core. The coursing is irregular and numerous tiny filler stones were employed, with occasional attempts to level-up a course. Some of the stones on both internal and external surfaces are finished with crude broad hammering or adzing. Occasionally, instead of using through-stones a course is made up from small chips of stone.

The doorways are perhaps the most interesting feature of this plain structure. The northeast doorway is the more elaborate. Because the tower did not occupy the whole of the bench cut into the wall, the threshold to the door was built out from the foun-

¹ It has proved impossible to have the numerous mortar samples analysed.

dations (see Fig. 5) with buttress-like features on either side, one of which fills the niche left on the bench; perhaps because of these buttresses the doorway is slightly angled away from the Roman wall. There are three steps down from the threshold. The maximum height of the doorway is 6 ft. 5 ins., and it is 2 ft. 6 ins. wide, and its sides are made with through-stones, topped by a semi-circular arch springing from small rebates. The rough voussoirs are non-radial and have a feather-edge stone at the centre. The southwest doorway is similar but smaller and has a simple threshold. It measures 5 ft. 8 ins. high and 2 ft. 3 ins. wide.

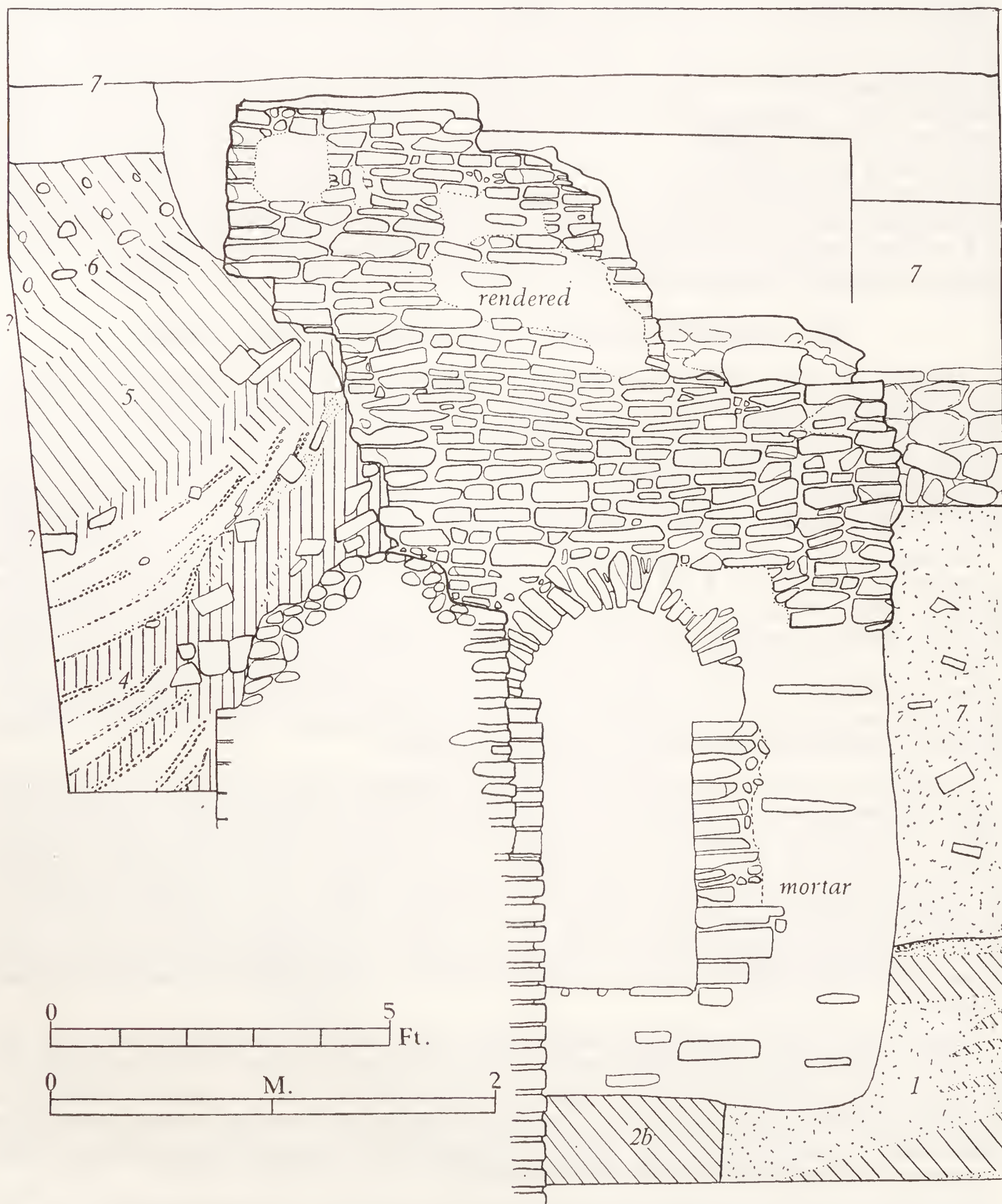


FIG. 6. Southwest external elevation of tower.

Both doorways are set considerably above the clay floor of the tower and no trace of a floor related to them was found, but this may be due to thirteenth-century disturbance



PLATE I.
 'Anglian Tower' during excavation, showing upper part and modern vaults
 from the south.

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PLATE II.
 Interior of tower from the southwest.

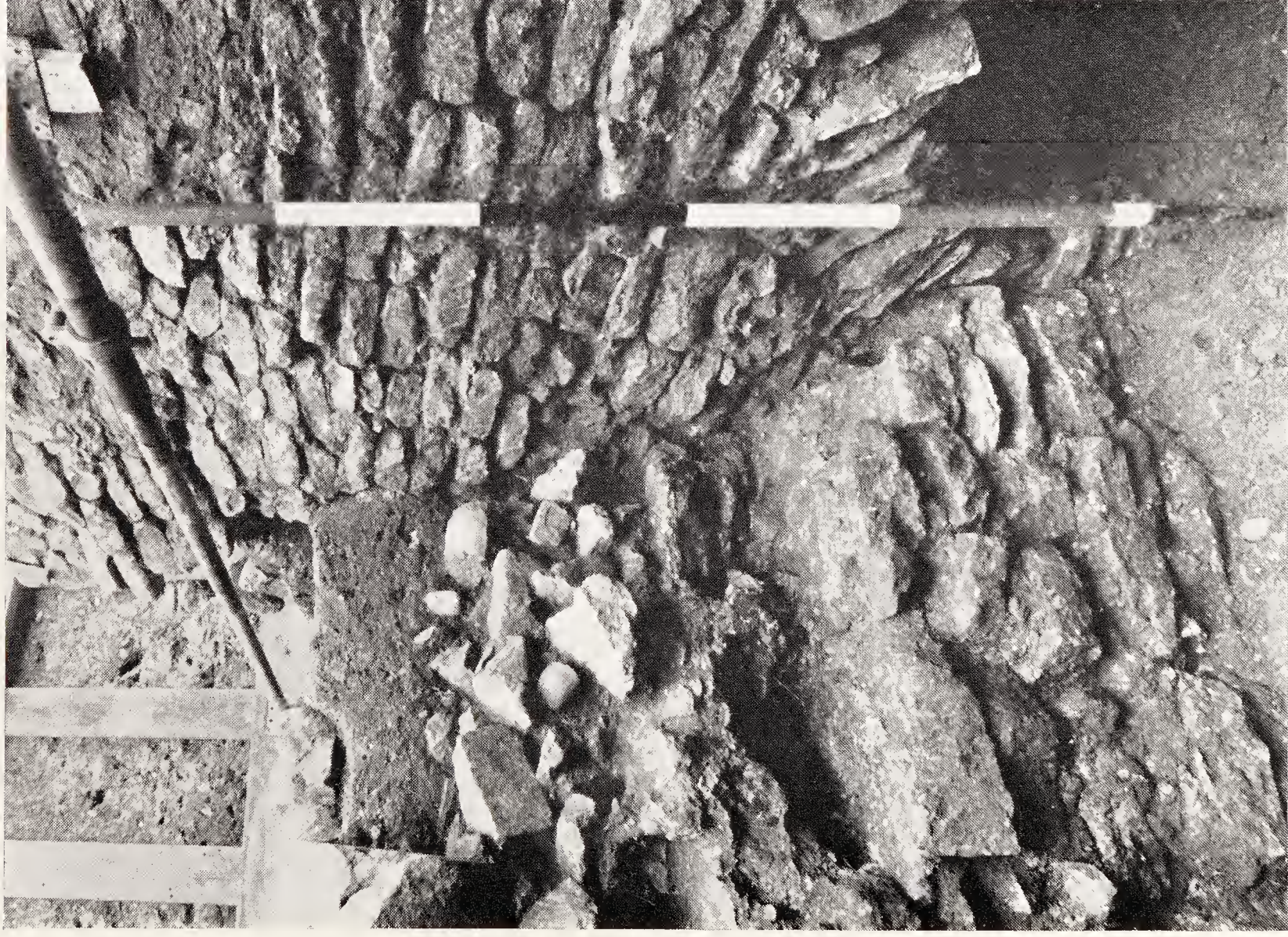


PLATE III.

Detail of junction between tower and presumed Danish bank inside Roman wall from the south.

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PLATE IV.

Section of rampart outside Roman wall from the southwest, showing relation between collapsed west angle of tower and bank.

(see below). Of considerable importance in the interpretation of the function of the tower and doorways is the relationship of the southwest doorway to the horizons outside; it opened immediately on to the unbroken succession of deposits in the Roman construction trench which extends 6 ft. 6 ins. below the doorway's threshold and some 4 ft. above it. Consequently, the doorway can never have been used and any projected approach way was never made. Sufficient space was probably cleared outside it in order to insert the stones which frame the doorway, but this could not be determined owing to previous tunnelling and illicit excavation.

The chamber within the tower has side walls 10 ft. 3 ins. to 10 ft. 10 ins. high up to the irregular springing line, upon which a segmental arch was constructed with its axis declining from 13 ft. 3 ins. high at the front to 13 ft. at the back. In the upper part of each of the side walls, below the springing, there are at least four straight joints which are one stone deep and span at least eight courses. They may represent recesses to carry timbers used in centring the vault. A slight recess around the top of the end wall is probably the space left when the shuttering was withdrawn. The stone vault is built of thin flaggy stones set on end, and, although not quite symmetrical, it is well made.

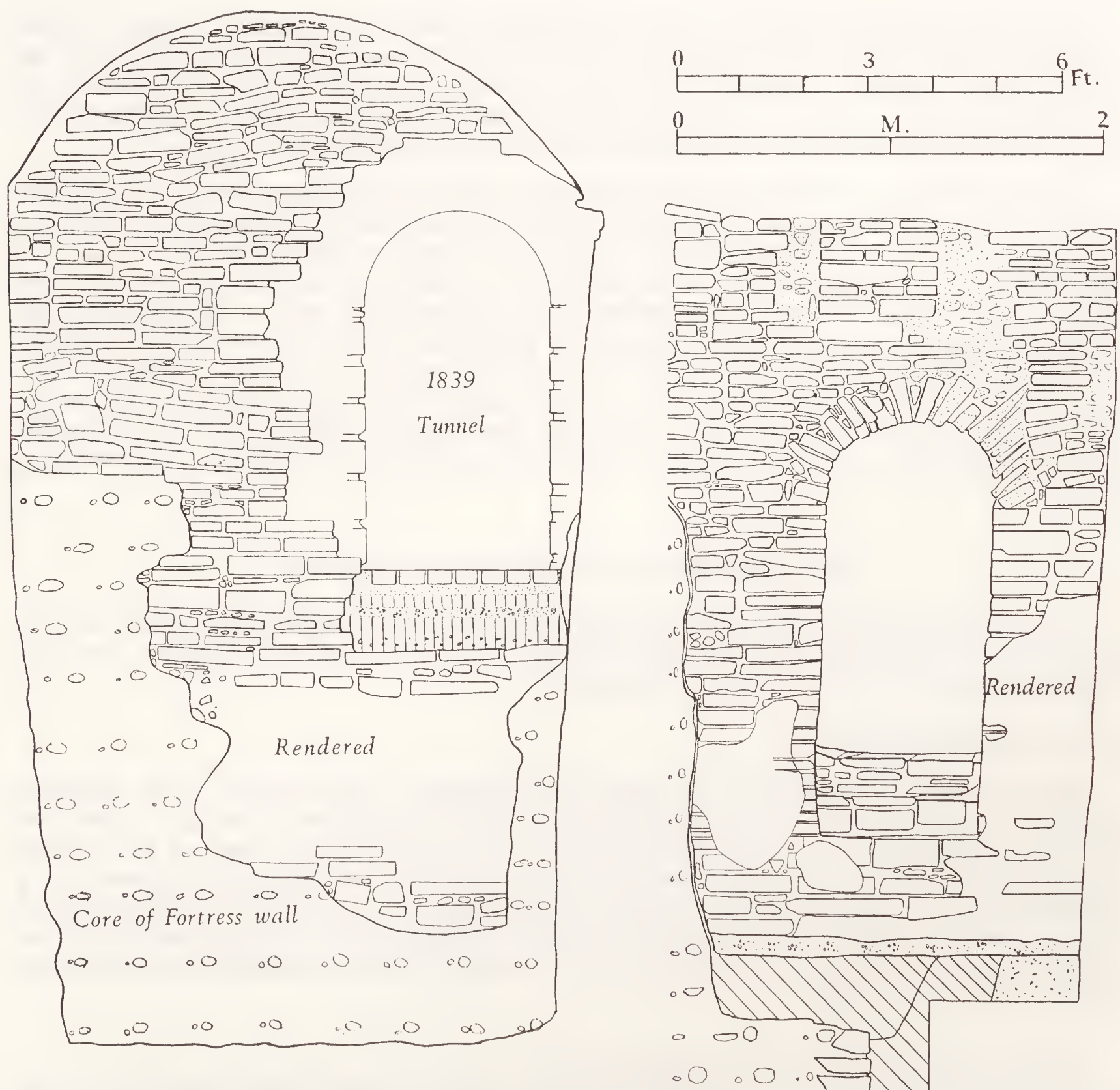


FIG. 7. Elevations of internal walls of tower: northwest (left); northeast (right). The stippled area indicates where facing stones are missing.

The top of the tower has been levelled off at the bottom of the Victorian soil horizon, giving the tower a maximum height of 14 ft. 7 ins., and it still stands 3 ft. to 4 ft. above the Roman wall. At present, the top of the tower is composed of large flat stones with mortar and rubble between them. The top part of the three surviving outer faces of the tower are slightly battered, which suggests that it was designed to carry a floor a little above the present masonry. One slight piece of evidence for the nature of this floor was found. At roof level but just northwest of the tower a flat slab of Magnesian Limestone was found with a piece of oolitic limestone mortared to it. This slab appears to have been knocked off the top of the tower in the nineteenth century, and probably represents the only use of Magnesian Limestone in the tower, employed as a floor paving because of its more durable qualities. Whether this floor was part of an upper room or a fighting platform will be discussed below. No method of gaining access to the upper level was discovered, and any steps or ladder must have been situated in the unexcavated zone southeast of the tower.

THE LIFE OF THE TOWER

The tower projected above the top of the Roman wall to an unknown height. There is slight evidence that it was exposed for only a brief period before being encased in the Danish earth rampart. The mortar squeezed between some of the stones, the tooling on some facing stones, and some areas of mortar rendering have a fresh appearance and can never have been exposed to a lengthy period of atmospheric weathering.

While it existed as a wall tower the lower part of the west corner collapsed and a little of the lower stonework along the front of the tower fell away. Excavation revealed a large open crack in the fortress wall immediately below the tower's west corner. It is probable that the weight of the tower acted on a weak point in the fortress wall and caused the collapse of part of its ashlar face together with part of the tower's west corner. The gap in this corner measures 4 ft. along the front of the tower and extends 2 ft. 6 ins. along the side wall (Fig. 6). The tumbled material must lie at the foot of the fortress wall although some appears to have been thrown up in the Danish bank. The collapse of the west corner is useful as the gap was later filled by the Danish bank, thus giving a terminal date for both the construction and use of the tower (see below).

THE MEDIEVAL EARTHEN RAMPARTS

Three separate phases of rampart construction have been isolated and these can be equated with some certainty with the historically-attested refortifications of the city under the Danes, the Normans, and Henry III.

(i) THE DANISH DEFENCES

Layer 4 (Fig. 8) is identified as the Danish refortification. Asser¹ refers to the weakness of the city walls in 866–7, contrasting them with their condition in his day. After the fall of York to the Danes in 866 and the brief rule of King Egbert, part of the Danish army settled in York in 868 and between then and 933 rebuilt the city defences on a Danish pattern, using an earthen rampart and palisade.² There is some slight internal evidence to date Layer 4: this, together with its stratigraphical position and the knowledge of the city's defences gained elsewhere, is enough to give reasonable certainty that it is the Danish rampart.

¹ Quoted in *V.C.H., The City of York* (1961), 10–11.

² *Ibid.*, for authorities. A more thorough treatment of both the documentary sources and the archaeological remains in the city for this period will appear in R.C.H.M., *City of York*, ii, The Defences (forthcoming); H. G. Ramm, 'The Development of the City to the Norman Conquest' in *The Noble City of York* (forthcoming).

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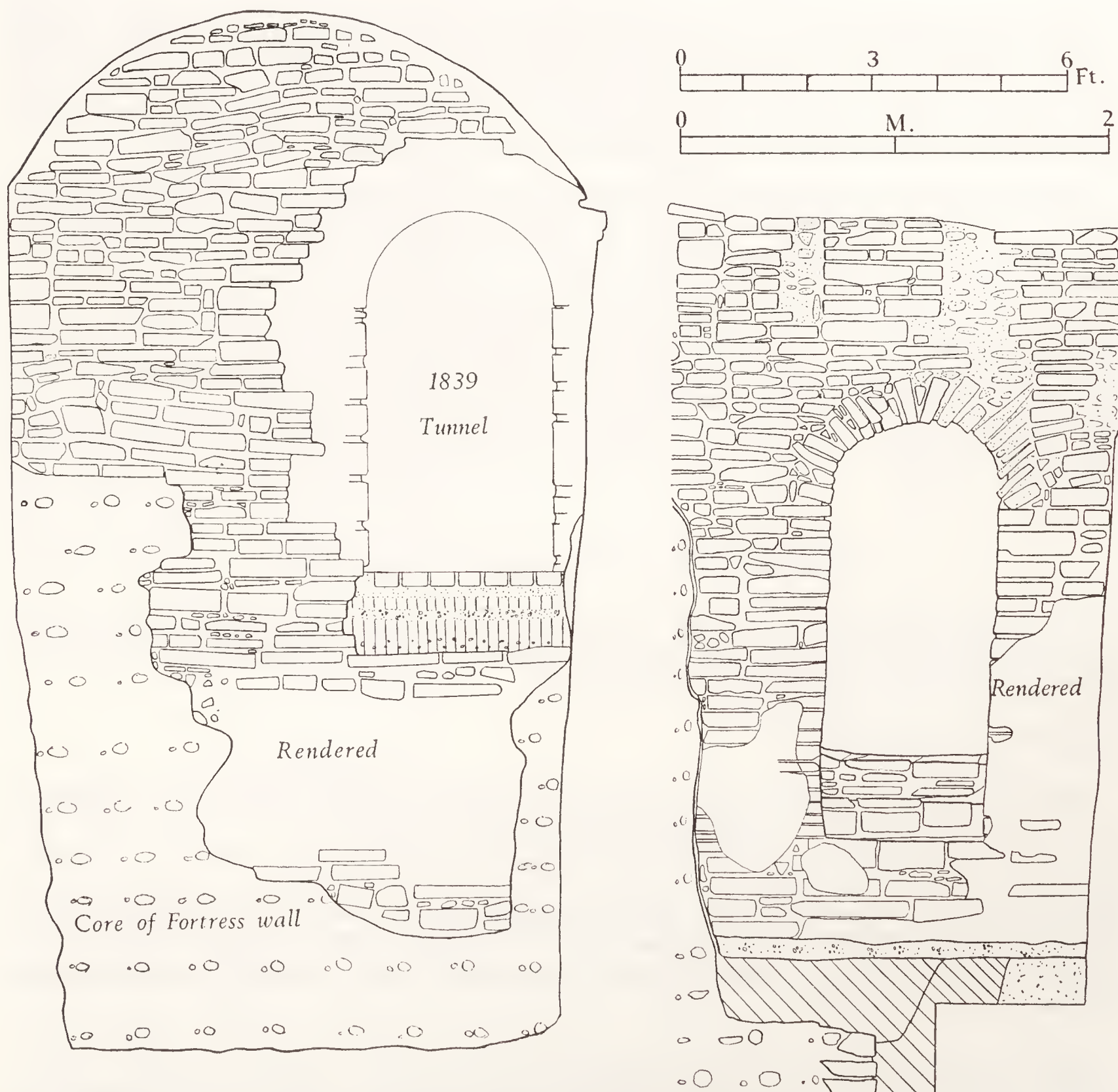


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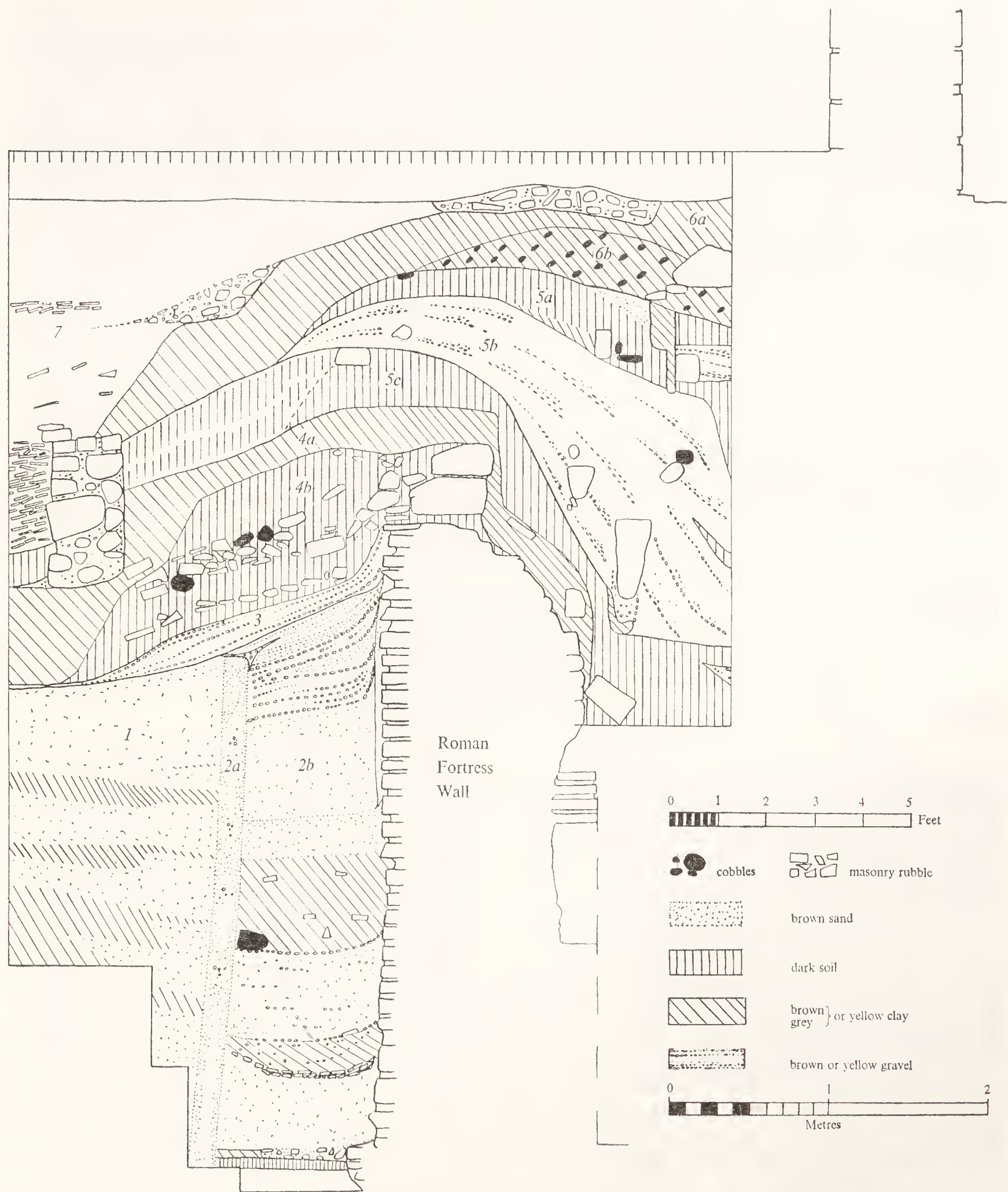


FIG. 8. Southwest section of bank.

The main feature of this Danish fortification in the excavation is a low gritstone wall or revetment which is well preserved on the southwest side of the tower (Pl. III). Standing two or three courses high, it was made of roughly squared, re-used Roman blocks (some with lewis holes) and, although it leaned forward in the excavated area, it was clearly designed to have a vertical face. At the base of Layer 4b a deposit of angular sand and gritstone fragments was probably a by-product of the rough trimming of these gritstone blocks. The axis of the wall was centred on the middle of the Roman fortress wall. The wall revetted a bank which extended behind the Roman wall and capped the Roman rampart. This bank was composed of friable dark loam with two

The relationship of Layer 4 to the tower is of primary importance. The gritstone wall, the loam, and the clay penetrated in an unbroken sequence into the collapse cavity at the west corner of the tower. Two slabs of oolitic limestone broke away from the front of the cavity and came to rest on the upper part of the Danish bank, and clearly the upper part of the tower was visible above the Danish earthworks (Pl. IV). Several fragments of oolitic limestone were recovered from Layer 4 showing that the building debris from the tower was scattered in the topsoil at the time of the construction of the Danish bank.

The function of the bank as a defence can only partially be determined from the excavation. It may be that Layer 4a was either specifically designed to stabilise the gritstone wall and rubble bank or that it represents a later addition. However, the gritstone revetment and the matching steep clay face suggests that a timber palisade or breastwork was erected on top of the Roman wall, which must have presented considerable difficulty in securing the timbers. No traces of timber or post-holes were found, but several nails from a restricted zone in the core of the bank may be derived from timber strapping, and at the foot of the gritstone wall an intermittent row of packing stones in a shallow groove probably represents the seating for palisade timbers. The palisade would have been set about 1 foot behind the front face of the stone tower, incorporating it into the line of defence and implying a surviving wall as high as the palisade – perhaps of the order of 5 ft. A shallow depression in the top of Layer 4a may represent the position of a wall-walk behind the palisade.

Finds from Layer 4

1. Bone counter with concave top, probably Danish (Fig. 11, 7).
2. Antler fid with plain chisel-ended point (Fig. 11, 9).
3. Eleven iron nails, most of which are probably Danish.
4. A plain iron strap-fastener, post-Roman and probably Danish.

(ii) THE NORMAN DEFENCES

The renovation of the city defences in the eleventh century is not documented and has to be inferred from the importance given by William I to York with its new castles built in 1068 and 1069.¹ The defences probably date from the reconstruction which followed the destruction of York by the English and Danes in September 1069. The more important castle was rebuilt, apparently in wood, in 1190–1 and was blown down in 1228. It is probable that all the city defences were similarly of earth and wood at this time, and the excavation shows the amount of renovation given to the city defences.

Layer 5 (Fig. 8) is composed of three distinct deposits which appear to form a single feature. The lowest deposit (5c) was a fine friable loam with numerous fragments of flaggy sandstone, bone, brick, and pottery which represents topsoil. The front of the defences is blanketed by a thick deposit of yellow-brown sand and gravel with lumps of clay and quartzite cobbles (5b) which probably comes from the excavation of a new ditch which must have extended at least in part beyond the Roman ditch. The surface cover (5a) is well developed dark brown soil with traces of burning at its base. In section it seems that the quantity of material added to the rampart is at least as much as all the material in the Roman and Danish defences.

The best evidence for a palisade is a distinct 'slot' for the seating of the timbers; it was traced on both sides of the tower, but modern disturbances had removed it in the close vicinity of the tower. The new rampart heaped against the front of the Danish bank carried the line of the palisade forward of its predecessor by about 3 ft. 6 ins., and it passed in front of and slightly obliquely to the northwest wall of the tower. The tower may have been reduced at this time to approximately its present height, the level of the top of the presumed Norman rampart.

The palisade slot survives 20 ins. deep and 2 ins. wide, with space behind it in its upper part for packing, the whole of which is now filled with clay. No external post-holes

¹ Brown, R. A. et al., *The History of the King's Works* (1963), 2, 889.

were found, but one internal post-hole was identified as a soil mark above the gravel layer and as a void below it. The post would have been 8 ins. in diameter and set 6 ft. 6 ins. into the Norman rampart. Slight evidence of a second post setting was found on the same alignment and 2 ft. from the first. Probably associated with the palisade were numerous iron nails. Fig. 12 shows the nails projected on to one section. They were confined to a zone 2 ft. wide along the line of the palisade, extending to a depth of 7 ft. Some of these nails may have been related to timbers tying the upright posts below ground level but the gravel of the rampart preserved no trace of any timber.

Finds from Layer 5

It may be noted that none of the finds are specifically Norman, but they are almost certainly Danish or Norman. The absence of the ubiquitous green glazed pottery of the later periods can also be used as evidence for the age of this layer.

1. Two rim sherds of hard red fabric with a large quantity of small grit with distinctive in-turned rims. Keen has identified this fabric as a separate ware,¹ and while its time range remains uncertain an eleventh-century date is at present acceptable (Fig. 11, 2 and 3).
2. The upper part of a small jar in fine pale fabric with traces of crude pale glazing on its exterior surface may be eleventh-century in date (Fig. 11, 4).
3. A silvered iron stud which may be Danish-Norman.
4. A plain bronze wire buckle.
5. ?A lead bung, with the shape to fit the top of a vessel, but with remnants of an iron tube in the centre, held in by lead.
6. 41 iron nails, one with a large elongated head, the rest conventional, 2 ins. to 5 ins. long.
7. Two pieces of worked elephant ivory, probably wasters, stained green with a mineral stain² (see Appendix II).
8. A bone counter with the surface decorated with incised concentric rings (Fig. 11, 8).

(iii) THE THIRTEENTH-CENTURY DEFENCES

By 1200 the four main gates of York were probably protected by stone gate houses with the earth rampart extending up to them. These were probably two phases in the thirteenth-century renovation of the city defences. The first increased the size of the earthen rampart and probably renewed the timber palisade, and the second replaced the palisade with the present stone wall and interval towers. The renewal of the rampart led to the re-excavation of the city moat and to an enlargement of the ramparts in height and width to about twice their previous volume. A grant of timber in 1215 clearly refers to the palisade,³ and in the following year houses were cleared from areas adjoining the outer ditch in order to widen it.⁴ The grant of tolls to the city in 1226 for the enclosing of the city to guard and defend it probably refers to the renewal of the rampart.⁵ In 1237 the castle was described as *prostratum*,⁶ and King Henry III replaced it with a stone-built castle in 1245–70. No doubt the city was drawn into this building programme, and it is probable that Henry III decided to enclose the city with a stone wall at this time. There is a continuous record of murage grants from 1251 onwards and much of the city was walled by 1268.

The present excavation provides evidence of the extension of the city rampart in the thirteenth century, creating approximately the profile which is seen today. Layer 6 adds very little to the height – a matter of 2 ft. of sandy soil with pieces of clay – but adds a considerable amount to the front of the rampart. The city wall is set on the crest, in advance of the line of the Norman palisade, but no evidence was found of a thirteenth-century palisade beneath or near to the city wall. At this point, the city wall stands 14 ft. 3 ins. high, is 2 ft. 9 ins. thick, and rests on foundations 2 ft. deep. The wall-walk is represented by a ledge 1 ft. 6 ins. wide acting as a seating for a temporary wall-walk in

¹ Keen, L., *Y.A.J.* xlii (1968), 129–31.

² Identified by Dr. J. Jewell of the B.M. Nat. Hist.

³ *Rot. Lit. Claus.* (Rec. Comm.), i, 195–6.

⁴ *Rot. Lit. Claus.* (Rec. Comm.), ii, 120.

⁵ Raine, J., *Historians of the Church of York* (1894; R.S.71) iii, 132.

⁶ *Close Rolls 1234–7*, 499.

times of war. Presumably the wall was not thickened to provide a stone wall-walk in this stretch because it was to a certain extent protected by the walls surrounding St. Mary's Abbey.

Finds from Layer 6 are described in the next section.

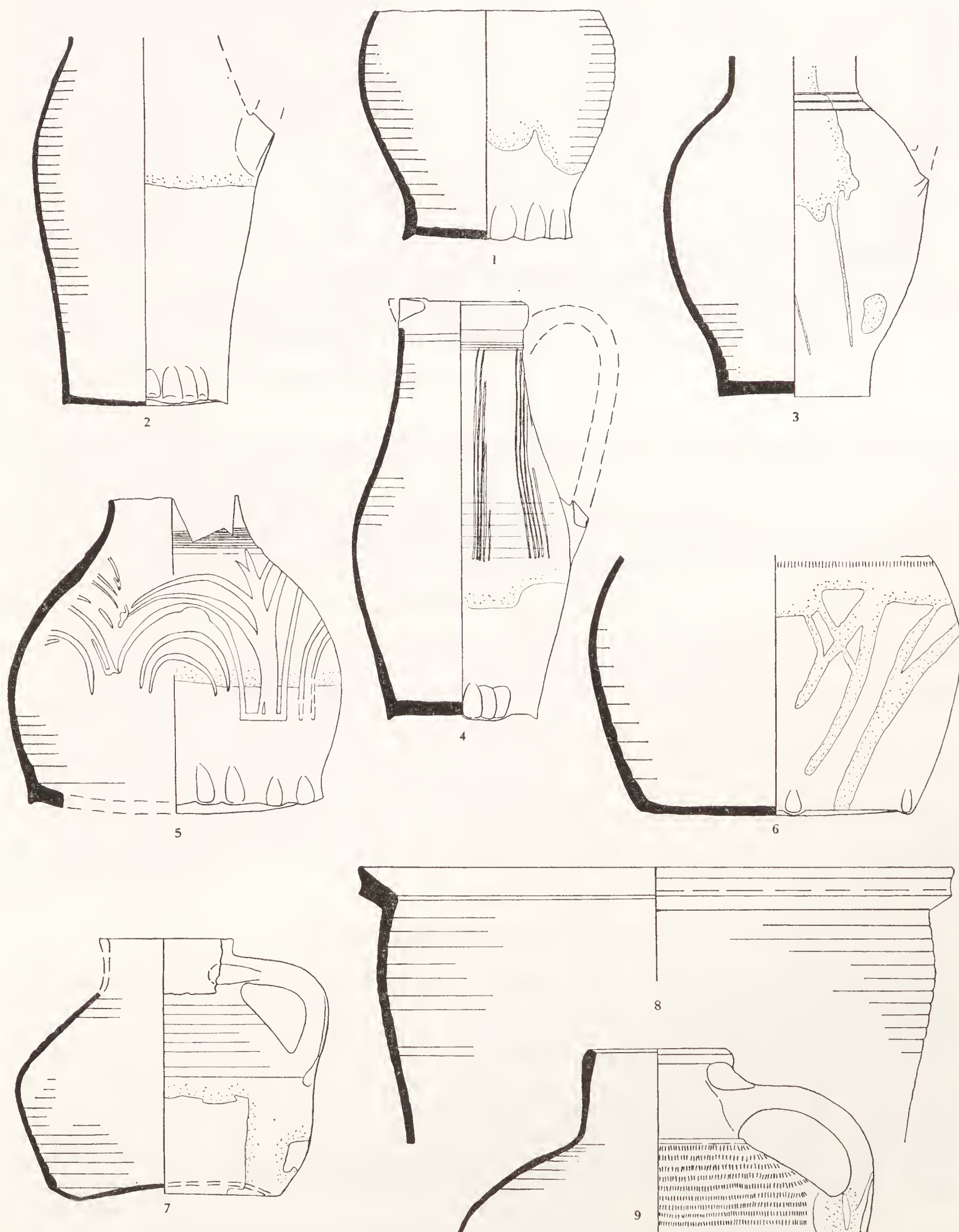


FIG. 10. Medieval pottery from inside tower. $\frac{1}{2}$.

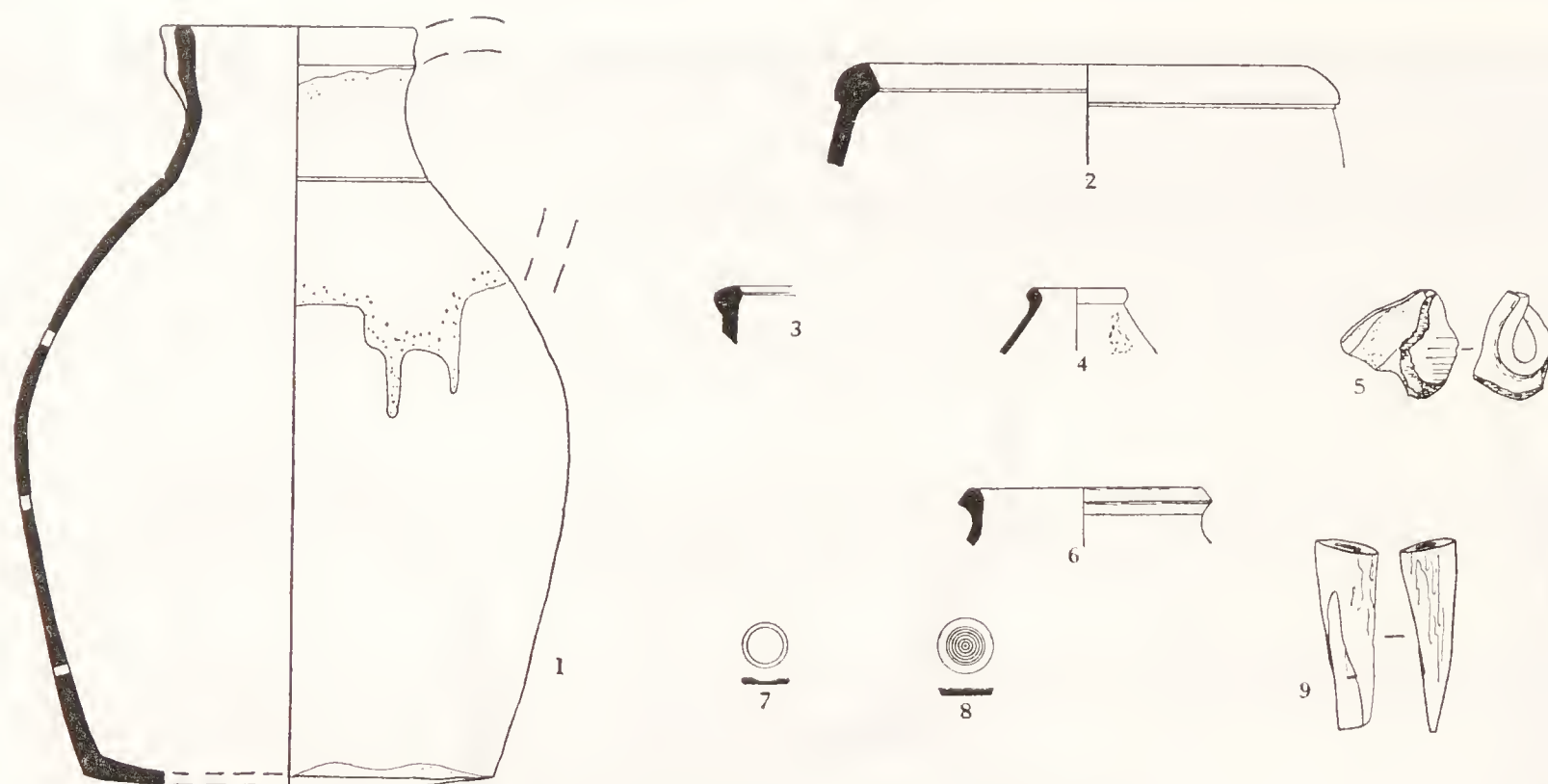


FIG. 11. Other sherds and small finds. $\frac{1}{5}$.

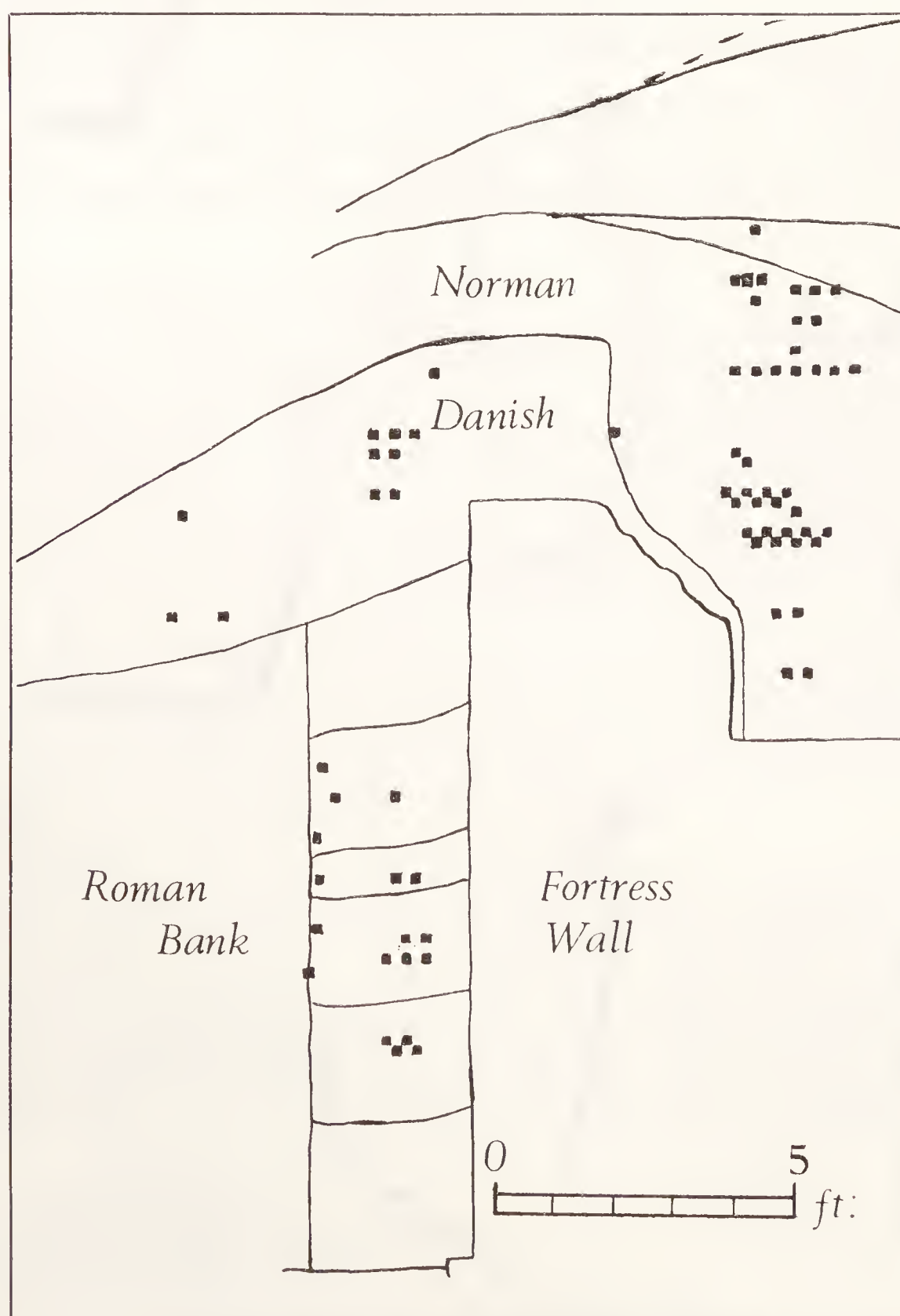


FIG. 12. Schematic representation of distribution of nails in rampart.

A THIRTEENTH- OR FOURTEENTH-CENTURY EXCAVATION OF THE TOWER

On the northeast side of the tower the Norman and Danish ramparts have been cut away by a trench which follows the tower wall down to the threshold of the doorway. The back-filling of this trench is indistinguishable from Layer 6 and some of the sherds from the filling belong to vessels found inside the tower. The pottery indicates a date in the late thirteenth or fourteenth centuries and may be the result of an investigation made at the time of the construction of the city walls and removing the contents of the tower down to the clay raft. The tower must have remained open for some time, perhaps with part of its roof missing, during which it appears to have had occasional use as a tool store or shelter. A layer of 1 ft. 6 ins. of finely laminated sand and lime accumulated, with larger pieces of lime slag and partially-reduced limestone, perhaps blown and washed into the tower during preparation of mortar for the city walls. Interleaved with these deposits was a small heap of oyster shells, part of the skeleton of a young pig, several crushed but substantially complete green-glazed jugs and part of a bowl, all probably the remains from meals taken by the builders of the city walls. The bones of several animals associated with dark and damp places were recovered – frog, toad, rat or vole, two complete hedgehog skeletons, and numerous snail shells. The Victorian investigation of the interior of the tower appears to have stopped at the top of this limey deposit, removing the subsequent thirteenth-century back-filling of the tower.

Finds from Layer 6 and inside the tower

A. Outside the tower

1. The majority of the sherds are typical of York's thirteenth to early fourteenth-century pottery with a grey-buff fabric and rich external green glaze. Bases and handles suggest that most of the sherds belong to flagons or jugs.
2. A crushed but largely complete jug in buff sandy fabric, thin and well-fired, with dark green glaze. It has a small pinched spout and a thumbled base. From 7 ft. deep (Fig. 11, 1).
3. The lower half of a jug found 10 ft. deep in the recess between the tower and the Roman wall. The fabric is buff and sandy, with a rich green glaze, and a thumbled base (Fig. 10, 1).

B. Inside the tower

1. The upper part of a large bowl of buff sandy fabric with internal splashes of yellow-green glaze (Fig. 10, 8).
2. The lower part of a jug of buff sandy fabric with rich green glaze. It has crude rouletting around its upper part and a thumbled base. Neck and handle missing (Fig. 10, 6).
3. Most of a jug of buff sandy fabric with green glaze. Plain with thumbled base. Neck and handle missing (Fig. 10, 2).
4. Most of a jug in buff sandy fabric with dark green glaze. Neck missing (Fig. 10, 3).
5. Most of a brick-red sandy jug with green glaze and creamy slip decoration. Neck and handle missing. Imported from Holland? (Fig. 10, 5).
6. The upper part of a jug, similar to (2) but slightly larger (Fig. 10, 9).
7. Most of a jug in buff sandy fabric with dull green glaze. Decorated with combing and thumbled base. Handle and spout missing (Fig. 10, 4).
8. Most of a jug of an over-fired thin sandy buff fabric with green glaze, and deformed base. Spout missing (Fig. 10, 7).

POST-MEDIEVAL CHANGES

Layer 7 (Fig. 8) has accumulated since the thirteenth century. The rear of the rampart was originally convex in profile, extending some 17 ft. behind the curtain wall and rising only to 11 ft. to 12 ft. above the internal ground level. Prior to the seventeenth century a retaining wall was constructed, perhaps during the period when the inner area was part of St. Leonard's Hospital. A later retaining wall, probably of c. 1675, was erected in front of the earlier wall, and this forms the line of the present retaining wall. The débris covering the rampart is mainly fragments of brick and tile, including Tudor ridge tiles, extending upwards into nineteenth-century brick, tile, and slates, which were finally covered with earth to make a garden c. 1832. The stable block was probably added at this time.

The tower suffered its most significant modification when it was rediscovered in 1839. The 6 ft. to 7 ft. high tunnel was set at the internal ground level and made from stones

and bricks. Much of the interior was cleared out down to the thirteenth-century lime deposit,¹ and back-filled to the tunnel's floor level with rubble. A door was added where the tunnel joins the southeast wall of the tower. The brick vault, to complete the tunnel, necessitated the rebuilding of the upper part of the southeast wall of the tower and adjacent sections of the side walls, but these can be readily distinguished from the earlier work.

THE DATE OF THE TOWER

All enquiry has failed to produce a satisfactorily secular parallel for the York tower either in Britain or in Northern Europe. However, there are some interesting parallels in Anglo-Saxon churches with western towers or porches. A general survey suggests that the closest parallels are in Northumbria, dating to the seventh century. Where a church tower is known to be of a later date it is normally larger in its proportions and more sophisticated in its style than these.

The closest parallels to the York tower are at Jarrow and Monkwearmouth. The porch and tower at Jarrow were destroyed in 1878 and only the plan is known,² but at Monkwearmouth the west porch,³ almost certainly of late seventh-century date, is remarkably similar to the York tower, and parallels for the early building can be found elsewhere. The close similarity in ground plan and height suggest that the mason who built the York tower was experienced in church architecture, and whereas there are limitations to the size of a porch imposed by the church plan, there is little or no control imposed for the construction of a defensive tower, other than perhaps the training and limitations of the mason.

The York tower uses the technique of crude rubble coursing with plain doorways. The arches over these doorways have rubble voussoirs not set in a proper radial fashion but have what Clapham called sloping springers⁴ at either side, with a V-shaped gap at the head of the arch filled with a small stone⁵ (Pl. II). Most of the arch and jamb stones go through the wall forming a lining to the opening, which is a distinguishing feature in several pre-Norman churches, for example at Escomb and Corbridge. The tower has walls averaging 18 ins. thick, the thinness of which is characteristically pre-Norman, and is paralleled at Jarrow and Monkwearmouth. The tower has a segmental vault with a radius of about 5 ft. and its apex is 13 ft. above the ground, which is almost exactly the dimensions of the vault in Monkwearmouth's porch. It is possible, however, that this vault, which is inserted into the original structure, may be a little later than the seventh century. Both Jarrow and Monkwearmouth, and indeed early examples from further south, such as Brixworth, depend heavily upon re-used Roman masonry, while the York tower does not employ any. There are sufficient similarities of detail between the York tower and Jarrow and Monkwearmouth for us to be reasonably certain that the tower is part of an early building tradition with its origins to the north of York.

Exactly how early the York tower can be is a matter for speculation. It seems unlikely that the tower can be placed in the British period following the withdrawal of Roman authority, since it would almost certainly reflect some continuity of Roman building tradition or use Roman masonry, which is not the case.⁶ The reign of Edwin of North-

¹ It is somewhat surprising that the Victorian digging ended at the limey deposit, and the possibility remains that it went down to the clay raft. However, there are no post-medieval intrusions in this layer, and it would necessitate the thirteenth-fourteenth-century pottery to be discovered whole and then smashed in the lime. The lime could be related to the building of the tunnel and brick vault. This would not, however, invalidate the relationship of these vessels with the deposit outside the tower.

² Taylor, H. M. and J., *Anglo-Saxon Architecture* (1965), 340.

³ *Ibid.*, 432-46.

⁴ Clapham, Sir A., *English Romanesque Architecture before the Conquest* (1930), 35.

⁵ For example at Brixworth; Baldwin Brown G., *The Arts in Early England*, ii, (1903), 247 and Fig. 150.

⁶ The post-Roman British rulers were capable of organising themselves but there is nothing in the record of events to suggest that any effort was made to continue maintaining the Roman fortress. The evidence is best summarised by Morris, J. R., 'The Literary Evidence', in Barley, M. W. and Hansom, R. P. C. (eds.) *Christianity in Britain A.D. 300-700* (1969), 55-73.

umbria or shortly after represents the most plausible period in which the military situation and events within York could have given rise to the construction of the tower. Edwin conquered York and was baptised there in A.D. 627, and he subsequently began the rebuilding in stone of St. Peter's Cathedral, ultimately completed by King Oswald. This – the first recorded stone building in the North of England during the Anglian period – is now lost and it is not known whether the masons were of native or foreign origin.¹ It is probable, too, that Edwin had a residence or palace within York, and it would be logical to refortify the city. Masons in the city could thus have built this tower, and indeed perhaps others, as part of general military preparations at this time. The similarity between the tower and the ecclesiastical remains at Jarrow and Monkwearmouth offer an interesting juxtaposition of dates and structures. The two northern churches are of seventh-century date and the work at St. Peter's, York, began around A.D. 632. The York tower could be attributed to Edwin's reign or shortly after, which might suggest that the York Minster represents the antecedents of Jarrow and Monkwearmouth.

It may be recalled that the Kingdom of Elmet existed at this time and may have had sufficient organisation to offer a military threat to Edwin,² and, incidentally, to cut off the Tadcaster area as a source of building stone.

A rather less convincing argument can be advanced for the construction of the tower at the time of the Danish invasions, a period (866–876) late enough to explain the lack of re-used Roman stone in the fabric of the tower, and from which more ecclesiastical remains are known. In 866 the Danes were ravaging East Anglia, and in 867 York fell with great slaughter; after warring in the Midlands the Danes returned to York in 869 and stayed for a year. They installed Egbert as King in York but, when the Northumbrians rebelled against him, the Danes returned permanently in 873. This sequence of events would create the right atmosphere for an attempted refortification of the city. It would require only a short period to prepare the ground and build the tower, and this would presumably have to be before 873, since Asser's comments imply that the Danes had stabilised the defences before this time,³ i.e., in the period 873–893. There are, therefore, two periods at which the tower could have been constructed, in the mid-seventh century, and the mid-ninth century.

Note. Mr. Radley does not consider here the possibility that the tower might belong to the later Roman period and have been built in c. 370 under Count Theodosius or even later under Stilicho. Its close proximity to a Roman interval tower makes it most unlikely that both towers could have been in use at the same time. However, both this interval tower (NW1) and that further northeast (NW2) had been largely demolished, leaving only stubs of the side walls. This demolition could have taken place during a later Roman phase when these towers were replaced by the one considered here and that discovered during the laying out of St. Leonard's Place (NW3). In spite of the lack of firm dating evidence for the tower discussed in this paper, the damaged condition of the fortress wall at the time the tower was added and the neglect of its builders to replace facing stones implies both greater damage or decay than could have been suffered within 70 years and greater carelessness over the appearance and strength of the wall than seems likely under Roman rule. (R.M.B.)

¹ Although the similarities between the York tower and Northumbrian churches have been demonstrated, it remains a possibility that the initial impetus for stone buildings could have come through Edwin's Christian wife, Aethelburh, sister of King Eadbald of Kent and daughter of King Aethelberht, the convert of St. Augustine. Aethelburh may well have brought skilled craftsmen in her retinue, together with Bishop Paulinus, when she moved to Northumbria in 625.

² A suggestion of sixth-century military organisation comes in a doubtful passage in *Canu Taliesin* (Sir Ifor Williams ed., *The Poems of Taliesin*; English version by J. E. Caerwyn Williams, 1968). One Gwallawc is praised as a perfect soldier, and in reference to his many battles there is the line 'gognaw ybrot digones'. Ybrot is interpreted as ybrawc, Ebrawc, Modern Welsh Efrog, i.e. York. Mr. G. R. J. Jones, to whom I owe this information, would translate the line as 'harassing York enough'. In a second Taliesin poem entitled 'Gwallawc', Sir Ifor reads *aeninat yn ygnat ac elvet* or 'who (Gwallawc) was named the judge of Elmet', i.e. in Welsh terms King of Elmet. Kenneth Jackson (*The Gododdin* (1969), 24, n. 3) doubts whether Gwallawc belonged to Elmet, but still leaves the reference to the late existence of Elmet as valid. Another poem of about the same date edited by Sir I. Williams in *Bulletin of the Board of Celtic Studies*, vii (1935), 22–32 contains a reference to the 'muster for the burning of York' – 'wrth y gyfwyre gynne Efracw'.

³ Quoted in *V.C.H., The City of York*, 10.

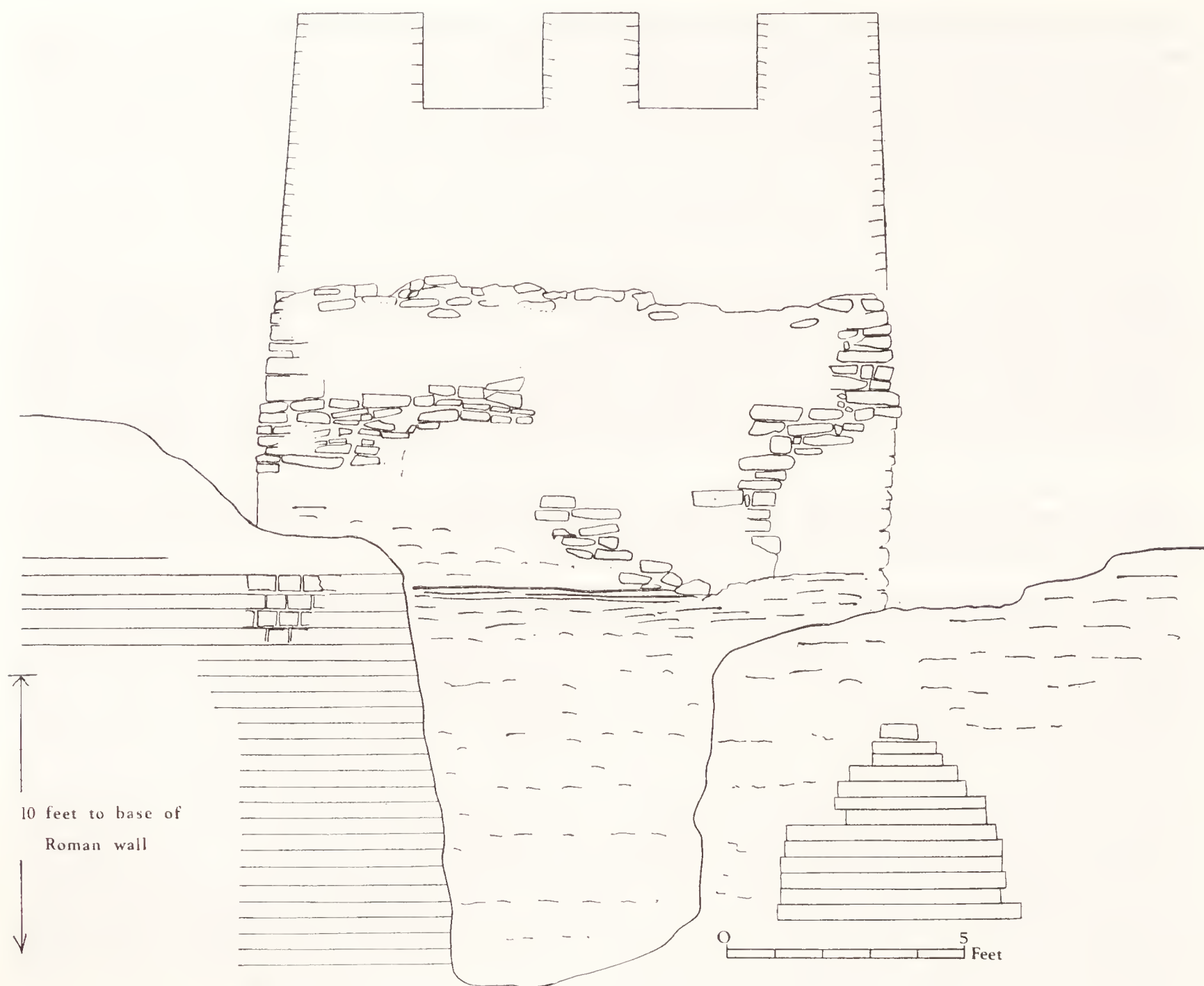


FIG. 13. Reconstructed elevation of northwest side of tower.

THE FUNCTION OF THE TOWER

The formation of the lower part of the tower is relatively clear from the archaeological evidence. The doorways were designed to allow a through sentry walk behind the stump of the Roman fortress wall. There is no evidence to suggest that the chamber in the tower had any other function, such as store, guardroom or prison, but was to allow free access along the walls. The easiest way to provide a breastwork of stone along this sector of the fortress wall was not to rebuild the Roman wall, but to lower the Roman bank and on the northeast side of the tower there appears to have been a hollow way, protected by some 6 ft. of Roman wall and leading straight into the tower.

In fact, the project must have been incomplete since, on the southwest side, the doorway opened on to undisturbed Roman levels, and one might envisage the renovation of the defences beginning perhaps at Bootham Bar, working along the wall towards the Multangular Tower and ending by the time the tower had been erected to fill the breach in the wall.

The form and purpose of the upper structure is uncertain but the strong stone-vaulted roof suggests that it may have been designed to carry at least one storey. Although the walls are thin, similar walls at Monkwearmouth carry a 59 ft. tower. Functions as a watch tower, or as a platform for archers or artillery are possibilities but there is no surviving evidence to substantiate any of these.

Finally, the position of the tower might imply the existence of others, either surviving Roman interval towers or later structures, incorporated in a Roman-style Anglian defensive system. The need for a tower at that particular place may be taken to imply

that the Roman enclosure known to exist on this side of the city was in disuse, but that it was earlier than the enclosure later known as the Earlsborough.

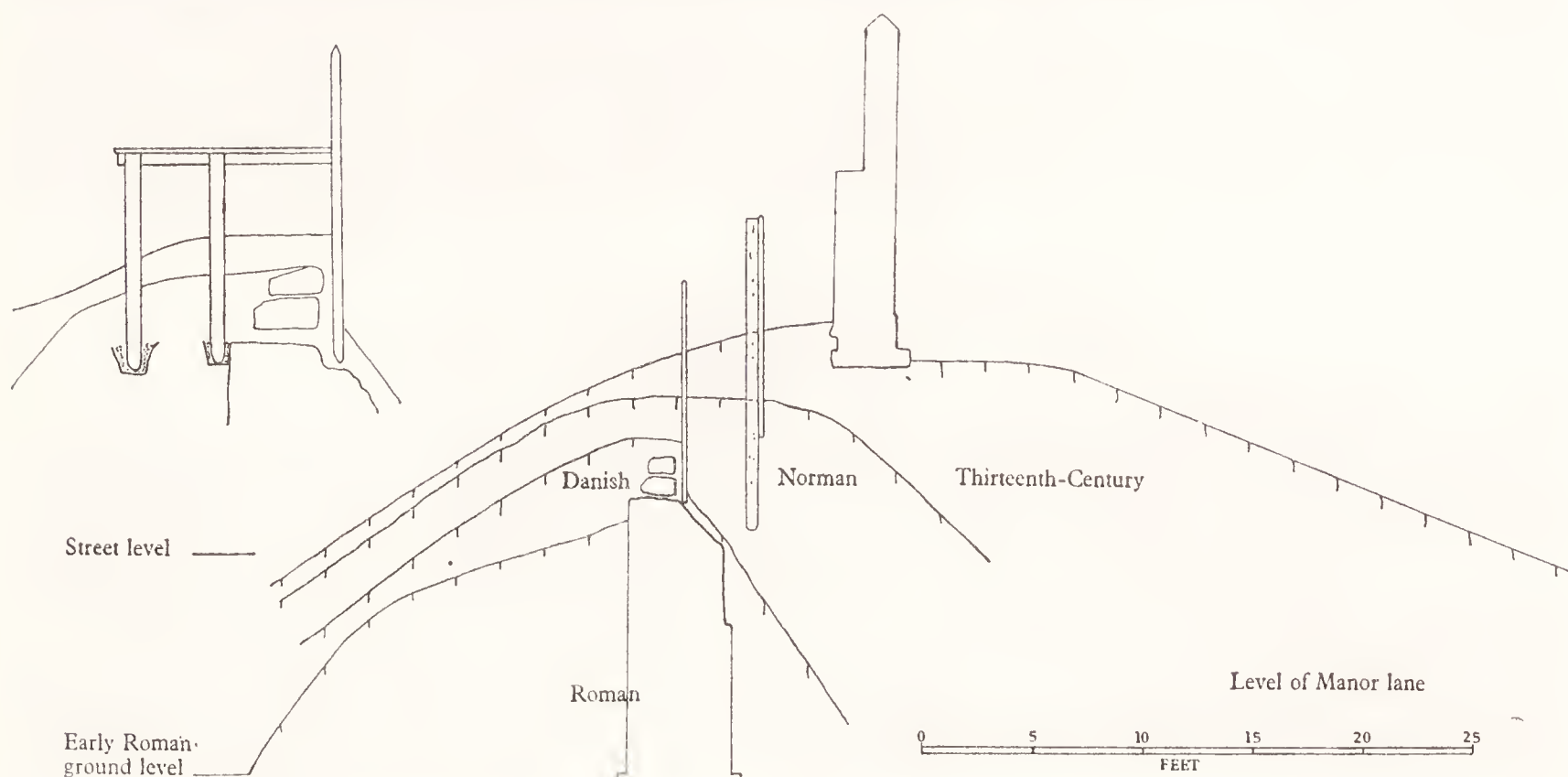


FIG. 14. Reconstruction of evolution of York defences (defences in Coney Street top left).

THE EXCAVATION AND THE VIKING AND NORMAN DEFENCES

A full survey of the extent and evolution of the city's defences has been prepared by R.C.H.M. and the following notes serve only to emphasise points which have been clarified by the excavation, with particular reference to the excavations in 1925-7 by S. N. Miller.¹ Miller was concerned with the development of the legionary fortress and his sections only give the post-Roman stratigraphy in outline. There are several artifacts² which Miller designated as post-Roman, but very few are certainly of this date, and none of them were found in his three most important sections. These are Section G in the Deanery garden (SE.60225233), Section K-L near the north angle of the fortress (SE.60345241) and Section C-D near the east corner tower (SE.60625219). These are shown in Fig. 15, with all Roman detail omitted, and with a tentative date given for each of the post-Roman layers.

Since the various horizons show a reasonable consistency of shape and composition, it is possible to attribute a date to them. The rather slight rubble bank faced with a gritstone revetment in the 1969 excavation is repeated in Sections G and C-D where the bank climbs up to or just covers the top of the decayed fortress wall, and the gritstone revetment is paralleled in Section G by a large stone set on the Roman wall fronted by a quantity of rubble which could represent the line of the Danish palisade. The external layer in Section K-L is less certainly Danish but, since it rests on an undulating layer of post-Roman black alluvial fill which covers the Roman ditch, it is reasonable to believe that the suggested horizon is the remains of the front of a Danish bank.

The Norman phase is represented by a bank which in each case passes over the top of the Roman wall but Miller's excavations did not extend to the probable position of the Norman palisade. In Section K-L, the difference in the levels of the top of the Norman bank on either side of the present walls suggests that there must be a marked change of slope at a palisade somewhere above the Roman wall. In Section G, two levels are attributed to the Norman phase, since, like the 1969 section, there is an upper level of

¹ S. N. Miller, *J.R.S.*, xv (1925), 176-94; *J.R.S.*, xviii (1928), 61-99.

² Preserved in the Yorkshire Museum, together with Miller's card index of most of the finds.

occupation earth covering a clean clay horizon, the latter probably representing the tail of material excavated from the external ditch and thrown up against and over the Danish defences.

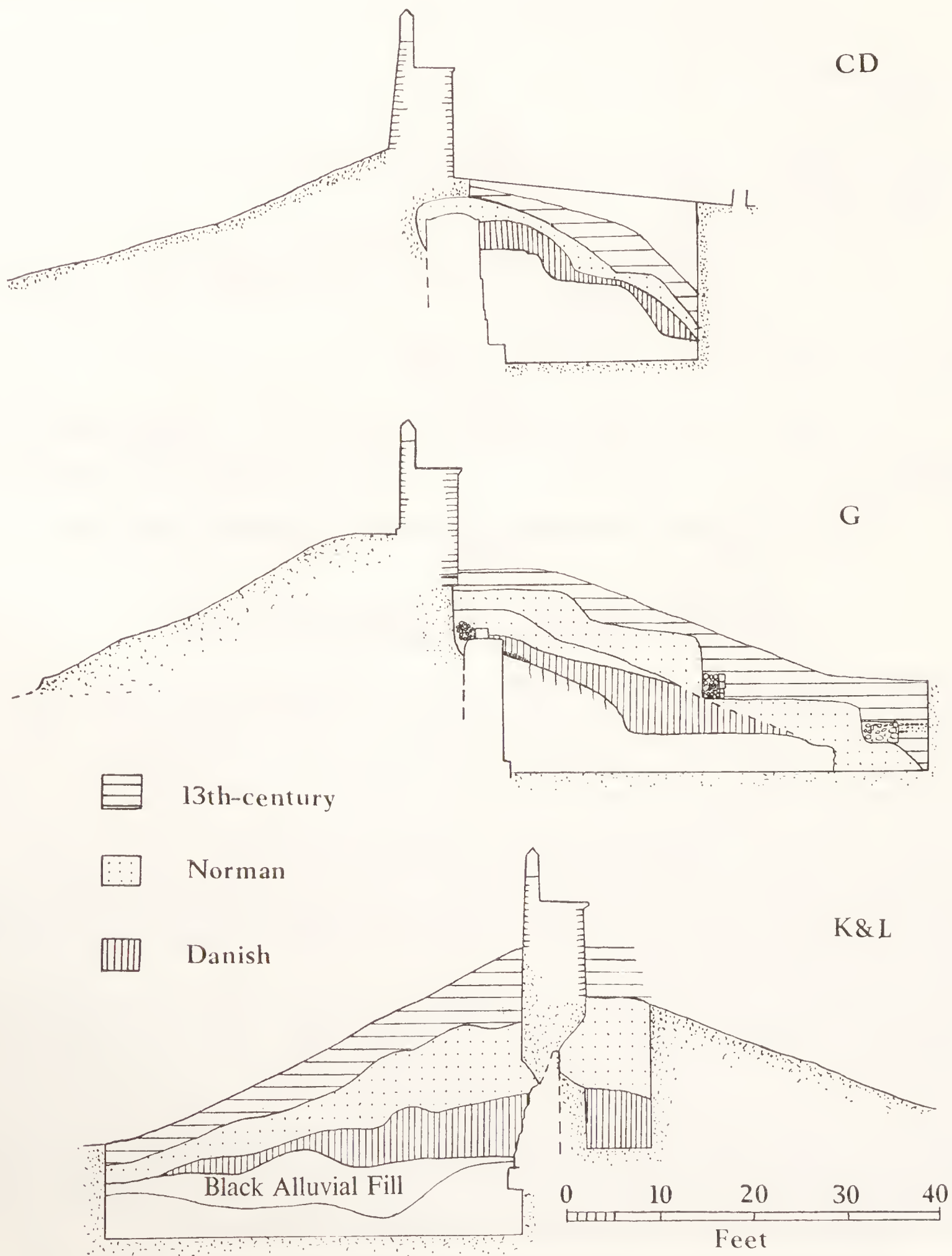


FIG. 15. Tentative reconstruction of the medieval rampart in three of S. N. Miller's sections (Roman bank and wall unshaded).

The thirteenth-century phase must certainly be the upper level but, again, the line of any palisade is obscured by the present wall.

If these interpretations are correct the present excavation and Miller's three sections suggest a series of fairly uniform renovations of the city defences along the northwest and northeast sides of the Roman fortress. Unfortunately no recorded section has ever been cut in the Walmgate and Micklegate sectors of the city. It is probable that the

Walmgate sector represents a Norman extension of the city, but this needs archaeological demonstration. The Micklegate sector is probably much more complicated. The Roman *colonia* was probably a walled town, and may well have had a Danish bank prior to the Norman refortification of the area. If this is so, there are several archaeological problems which need working out, perhaps the most important one being the relationship between the fortress and *colonia* area – whether they were fortified in Danish times as one or two separate entities, and when the ramparts linking the two areas of defences near Lendal and Castlegate were made.

THE EXCAVATIONS OF 1970 AND 1971

By R. M. BUTLER

In May 1970, Jeffrey Radley, assisted by two labourers and several volunteers, cut a trench 5 ft. wide and 42 ft. long through the rampart outside the walls and connected it with the section excavated in 1969 and described above (Fig. 8) by a cutting underneath the city wall. This section was excavated to a depth of 19 ft. below the modern surface immediately outside the Roman wall and to a depth of 15 ft. 6 ins. adjoining the lane beside the King's Manor. Work was brought to a sudden end on 22 July by the collapse of the southwest side of the cutting, causing the untimely death of Mr. Radley.

The rampart at this point is limited by the city wall on the southeast and by a nineteenth-century brick wall alongside the lane on the northwest. It had been treated as a garden in the nineteenth century but had become neglected and overgrown. The slope in 1970 was less steep than in *c.* 1810 as shown in views by J. Halfpenny and G. Nicholson, no doubt due to subsequent dumping of earth. During 1971 this slope was cleared of shrubs and debris by the City Engineer's Department and turfed. The brick wall along Manor Lane was also lowered.

The section through the rampart, taken on the southwest side of the trench, had been drawn up to 20 July and finds made up to 22 July are preserved. From Mr. Radley's notes and drawings and the recollections of those who had assisted on this excavation it has been possible to make this record.

The uppermost layers, 10 ins. thick beside the city wall to 6 ft. 6 ins. thick at the northwest end of the trench, contained eighteenth and nineteenth-century material as well as Roman and medieval sherds and may represent earth removed in the excavation of the tunnel through the rampart in 1839 – its entrance, now covered, was only 15 ft. to the northeast. From these upper layers came the only coins found, a halfpenny of George V, a half-crown of George III dated 1814, a bronze of Gratian minted at Arles between 367 and 375 with the *GLORIA NOVI SAECULI* reverse, and a barbarous *FEL. TEMP. REPARATIO* bronze of *c.* 360. Two compact zones of pebbles were identified as paths. The uppermost, 3 ft. 4 ins. wide and 3 ft. from the city wall, was just below the surface; the second, 2 ft. wide and 26 ft. from the wall, was 2 ft. 6 ins. below the surface.

Extending for 1 ft. 6 ins. under the footings of the city wall and 5 ft. 6 ins. in front of them was a layer of fine brown clay and cobbles with Roman sherds. Below this was a thin layer of fine, brown, sticky sand, identified as an old turf line, sealing a layer of cobbles 5 ft. 6 ins. wide and 3 ins. to 4 ins. thick, its southeast edge being 6 ft. from the city wall. Below this was a layer of mottled brown, sandy soil 1 ft. to 2 ft. thick containing bones, Roman pottery, tile and stone. Below this again was a layer 4 ins. thick of fine, black, sandy soil, also thought to be an old turf line.

The next layer corresponded to Layers 6a and 6b inside the wall but included a quantity of limestone rubble and cobble. Below this again Layers 5a–c, some 7 ft. thick, continued from within the wall and were identified as the Norman rampart. At a depth of 12 ft. below the modern surface a deposit of yellow, buttery clay 1 ft. thick sealed a deep layer of uniform grey clay, corresponding to 4a inside the Roman wall and there identified as the Danish bank. At a point 12 ft. outside the Roman wall the outer face of this layer was sloping steeply.

The outer edges of all these layers sloped into a black sticky ditch fill containing many animal bones and birch stakes which was being revealed by a mechanical digger when the collapse occurred and it was buried again. This ditch was 9 ft. 4 ins. below the lane and 4 ft. 6 ins. below the presumed Roman ground level. The Roman ditch or ditches, which from finds elsewhere should have been 17 ft. outside the fortress wall, were not seen.

The outer face of the Roman fortress wall was exposed over a depth of 10 ft. to a point 1 ft. 6 ins. above the projected Roman ground level. Where the section intersected the wall the facing stones had fallen or been robbed and a pile of stones lay in front of its base. These included about 20 facing blocks and other stones with no traces of mortar. Among them at a depth of 19 ft. from the surface was a sandstone block 1 ft. 1 in. by 8 ins. by 6 ins. with Roman tooling and inscribed *APA:S*. On the northeast side of the trench the rubble was separated from a fine clay by a thin column of loose, dark soil full of charcoal. This appears to have been a timber façade up the front of the Roman wall at this point against which the grey clay of the presumed Danish rampart was deposited.

The finds from the excavation are mostly Roman pottery and animal bones. The uppermost layers included medieval to modern potsherds and artifacts but the derived Roman material is of little use for dating the various stages of the rampart. At a point 11 ft. 6 ins. below the surface and just outside the city wall three human skulls and other human bones were found, perhaps disturbed burials in the supposed early Norman rampart.

Something should also be said of the work carried out during the autumn of 1970 and spring of 1971 inside the city wall adjacent to the tower discussed above. A plan was drawn up by the City Engineer's Department, reviving a scheme originally devised by the late Rev. A. Raine and Mr. C. J. Minter to expose to public view not only the tower but also the stretch of Roman fortress wall as far as the Multangular Tower. The scheme, with an estimated cost of £7,000, was approved by York City Council in May 1970 and work started on 29 October. The rampart was entirely removed over a length of 170 ft., a width of 20 ft., and a depth of 8 ft. to 10 ft. The medieval wall is supported by closely spaced concrete piers concealed by a continuous facing of pebbles set in concrete. On the strip, 4 ft. to 5 ft. wide, between this facing and the outer side of the Roman wall is a gravelled path. Between the inner faces of the Roman wall and of a medieval retaining wall built by St. Leonard's Hospital the space of some 9 ft. is turfed. From both levels steps lead down into the tower. The nineteenth-century brick tunnel has been demolished on either side of the tower, beyond which to the northeast the excavation has cobbled faces stepped to indicate successive layers of the rampart. The tower was strengthened and grouted; it now bears a plaque using the name 'The Anglian Tower'. The completed scheme was opened to the public by Mr. H. G. Ramm on 15 July 1971. A tablet in memory of Mr. Radley was unveiled by the Marquess of Salisbury, Chairman of the Royal Commission, on 8 October 1971.

During this work for conservation and display facilities for examining the rampart were given to volunteers who had worked with Mr. Radley, under the direction of Mr. Ramm. In November, however, Mr. B. K. Davison of the Inspectorate of Ancient Monuments, Department of the Environment, came to undertake a fuller examination of the rampart than had previously been envisaged. The excavation, under his direction, to be published later, revealed (from southwest to northeast) part of a rectangular medieval building set into the rampart and subsequently cut off by the retaining wall, the stubs of the side walls of a Roman interval tower, and a layer of rubble set on the Roman rampart.

The fortress wall generally retained its outer facing stones in good condition and in places is still capped with a cornice of up to five tiles thick from which the parapet presumably rose. At some points gritstone blocks and rough walling had been added on top of this wall; immediately southwest of the 'Anglian' tower a series of slots for timbers 9 ins. to 1 ft. wide, and 6 ins. deep had been cut at 4 ft. intervals in the top of the Roman wall and at right angles to its line. These had apparently held timbers resting partly on the wall and partly on the internal rubble layer, intended to support the vertical members of a wooden parapet at a time when the fortress wall was still used as a defence. A grey clay, probably corresponding to Mr. Radley's Layer 4a, filled these slots and sealed the rubble bank.

The stratification of the rampart was complicated and the finds were numerous. Neither can be discussed here, but a notable feature was a bank of yellow sandy layers alternating with dark earthy layers, thrown up against the outer face of the Roman wall after the deposition of the grey clay. This bank apparently corresponds to Layer 5 and certainly antedates the medieval wall. It could be traced over the whole length of the excavation.

APPENDIX I

THE STONE USED IN THE YORK TOWER (Fig. 16)

Further attention can be given to the implications of the beginning of the use of stone in the city of York and its neighbourhood, since it is possible to argue that there may have been a continuing tradition of using stone on a local basis centred on the Howardian Hills and the west end of the Vale of Pickering. Here the oolitic limestone was certainly used by the Romans especially at Malton and in the villa at Beadlam. Stone-covered and stone-lined burial cists using the same stone have been attributed to the late Roman and immediately post-Roman or Anglian periods, with at least one recorded from York.¹ Other local stones were used for crosses and grave covers throughout the succeeding centuries in considerable numbers and in the immediately pre-Norman period both sandstone and limestone were used in church fabrics. At Hovingham, the pre-Norman tower has re-used window heads in its fabric which would give a somewhat earlier date for the initial stone church, and at Lastingham one might expect a very early date for the first stone building. The general impression is one of considerable use of stone persisting in a fairly restricted area, but which might have quarries which could supply the oolitic limestone to York for the construction of the tower. One would give a great deal to know what kind of stone was used in Edwin's cathedral.

Outside Yorkshire, the use of stone in pre-Norman defences is becoming increasingly apparent. The free-standing thin-walled tower at Sulgrave, Northants,² is of particular interest for, although its function is not certain, it exhibits the same rough craftsmanship as the York tower. The Alfredian burhs employed a little stone, as for example at Wareham.³ The York tower could equate with this ninth-century use of stone on the grounds that the tooling on the tower looks very fresh, mortar 'squeezes' survive, and many of the stones possess an angularity which suggests that they were exposed to atmospheric weathering for a brief period before being encased in the Danish bank.

¹ H. G. Ramm, 'The End of Roman York', in R. M. Butler (ed.), *Soldier and Civilian in Roman Yorkshire* (1971).

² *Current Archaeology*, No. 12, Jan. 1969, 19-22.

³ R.C.H.M., 'Wareham West Walls', *Med. Arch.* iii (1959), 120-38.

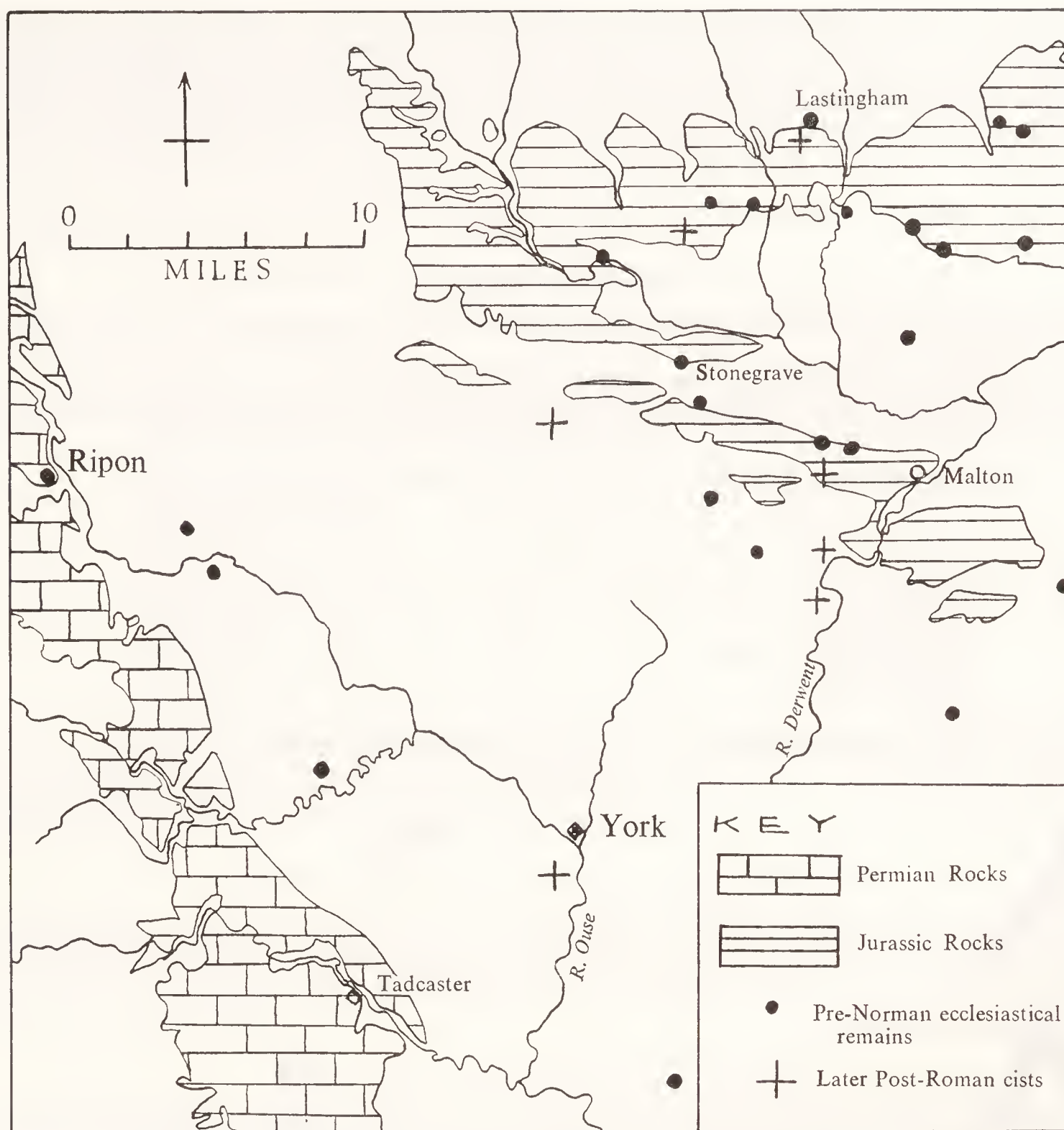


FIG. 16. Geological map of the York area to illustrate Appendix I.

A specimen of stone from the tower submitted to the Institute of Geological Sciences, London, was described as not inconsistent with stone from the Osmington Oolitic Series of the Corallian formation which is Jurassic in age, a series well developed in the Howardian Hills.¹ The choice of oolitic limestone as the only material used in the construction of the tower is, in York terms, unique. Although the Magnesian Limestone from the Tadcaster area was normally used in Roman times, it was thought² that the quarries were not in use between the end of the Roman period and the Norman Conquest. However, the most recent study of the use of stone in York³ has shown that pre-Danish Northumbrian crosses were normally made from Magnesian Limestone of larger blocks than were normally available in Roman York, implying at least intermittent quarrying through the Anglian period. Later crosses were usually made from gritstone. A small amount of oolitic limestone was used as rubble in the Roman fortress wall, and some was used in the pre-Norman tower of the church of St. Mary, Bishophill Junior, which may have been obtained from an earlier building. Every stone fragment associated with tenth-century timber buildings excavated by the writer in High Ousegate during 1969 was of oolitic limestone.

This oolitic limestone outcrops to the north and east of York at several localities in the Howardian Hills. The closest to York is at Kirkham, but the best outcrop of building stone extends from Malton to Gilling along the west margin of the Vale of Pickering. There is no evidence in Domesday Book for quarrying in this area but the place-name of Stonegrave is of considerable interest. A papal letter dated 757-8 to Eadberht, King of Northumbria, and his brother Etberht, Archbishop of York, urges the restoration of three monasteries to Abbot Forthreth, and these are *Cuha-palda* or *Cuchawalda*,

¹ Letter from F. G. Dimes, 6 April 1970.

² E. M. Jope, *Med. Arch.* viii (1964), 95, n. 30.

³ H. G. Ramm, 'The Use of Magnesian Limestone in York', in the Symposium on the York Virgin, 28 March 1968, in York Minster Crypt (Cyclostyled MSS.).

Donaemupe, and *Staninggrave*.¹ These are probably Coxwold, Jarrow, and Stonegrave. Stonegrave, a village 5 miles southeast of Helmsley, probably derives its name from a Scandinavianised form of *Staninggrave*, which could be interpreted as ‘the quarry of the people of Stan’.² This Northumbrian name may well indicate the general area from which the stone was obtained to build the York tower. An early water route to York may have existed down the River Rye and via the Derwent into the Ouse.

APPENDIX II
ROMAN POTTERY

The following is a summary of sherds found in the 1969 excavation and now deposited in the Yorkshire Museum, York.

The main group of finds comes from the filling of the construction trench behind the Roman wall. There are six distinctive layers of clay and sand with a similar archaeological content, and the sherds from these layers are tabulated below as a-f in descending order.

Layer	a	b	c	d	e	f
Samian	—	17	10	9	1	—
Orange fabric	1	90	69	43	14	—
Rusticated grey fabric	1	28	20	22	4	—
Red mortaria	—	—	—	3	1	—
Other	—	9	4	8	6	—

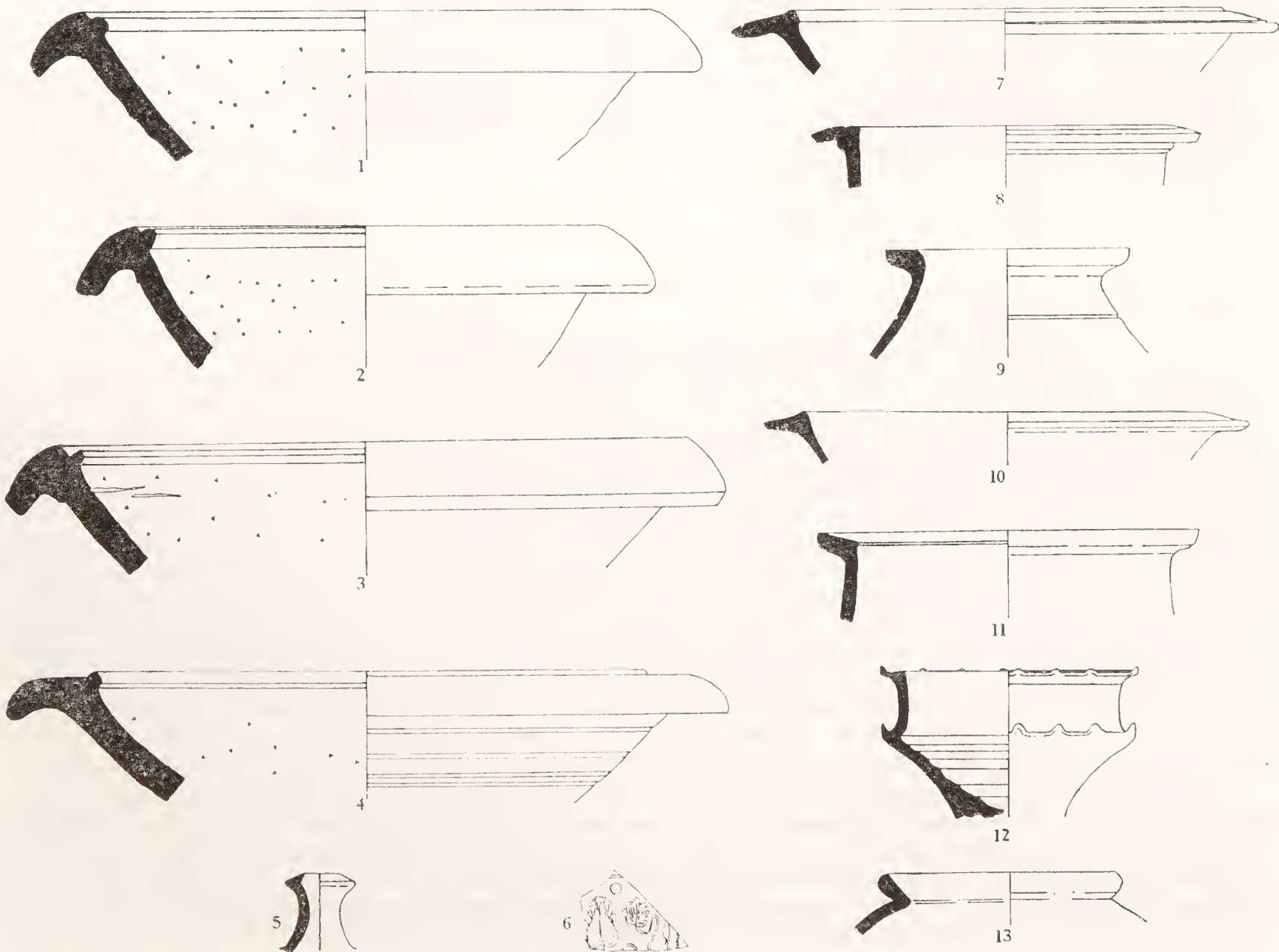


FIG. 17. Roman pottery (Appendix II). $\frac{1}{8}$.

¹ W. de G. Birch, *Cartularium Saxonicum* (1885), i, 262–3.
² A. H. Smith, *The Place Names of the North Riding of Yorkshire* (1928), 54–5.

The most common kind of pottery represented is the sandy orange fabric commonly found in York and called Legionary Ware, represented by numerous flagons, bowls with flat or slightly sloping reeded rims (Fig. 17, 7, 8, 10), flat rimmed jars (Fig. 17, 9, 11), and *tazza* (Fig. 17, 12). Associated with these were several samian forms (Drag. 15/17, 18, 27, 29, 35/6, 37), and many small pieces of rusticated grey jars. The red mortaria fragments (Fig. 17, 1-4) are Gillam's form 237, which together with most of the other finds are probably of Flavian date. The latest samian represented is a Drag. 37 of the Hadrianic/Early Antonine period and nothing need be later than A.D. 150.

From the post-Roman levels Roman sherds were common and all save tiny fragments were retained. They are tabulated below:—

Layer	4a	4b	5a	5b	5c	6a	6b	8
Samian	—	3	—	15	3	—	7	—
Orange fabric	—	9	8	36	9	6	15	4
Black burnished fabric ..	—	1	—	12	1	1	—	—
Cream slipped orange fabric	—	3	1	4	2	—	—	1
Calcite gritted fabric ..	—	15	24	14	13	—	9	1
Buff fabric	—	—	1	3	1	—	2	3
White or creamy fabric ..	—	1	2	—	1	—	2	—
Grey fabric	—	14	19	58	15	3	26	7
Colour coated fabric ..	1	2	10	3	5	—	4	2
Amphorae	—	—	1	2	—	—	2	—
Mortarium	—	—	—	—	—	—	—	1

It is not possible to attribute many of the sherds to any particular period, but it is quite clear that much of the samian and the orange sherds (21 %) are residual from the early Roman period. Other sherds, such as the colour coated fabrics (6 %), and particularly the calcite gritted wares (19 %) and some of the grey fabrics (34 %) clearly belong to the later Roman period.

ROMAN BRICK, TILE, AND WALL PLASTER

Several hundred fragments of brick and tile were found, mostly too fragmented to identify. Of the larger pieces, 22 of *tegulae*, 14 of *imbrices*, 6 box tiles, and 11 bricks or hypocaust tiles (ranging from 44 mm. to 92 mm. in thickness) were retained. Two stamped pieces were found, both too fragmentary to read. Layer 5b yielded 10 pieces of wall plaster, three of which retained traces of red or brown paint, and 1 piece of *opus signinum*.

ROMAN GLASS AND METAL WORK

Of the 23 fragments of glass none show rim, base, or decorative forms. Besides two fragments of melon beads, there are two bowl fragments in blue glass, parts of 3 green jars or bowls, one piece of cut glass, and the remainder are parts of clear glass vessels.

The following bronze coins were recovered:—

	Layer	Mint
1. Nero	5	—
2. Nero	2	Lugdunum
3. Vespasian	5	—
4. Vespasian	2	—
5. Helena	5	Trier

Amongst the fragments of bronze were six small bronze studs and a plain first-century fibula and fragments of a bronze chape. The iron nails have been described elsewhere.

FLINT

Eleven struck flints, of which four are from the construction trench, are either Roman or pre-Roman. There are no tools, most of them being long flakes and blades.

ANIMAL REMAINS FROM THE CONSTRUCTION TRENCH

The following animals have been identified by Mr. D. Bramwell of Bakewell.
Ox – Teeth and bones of young and old animals. Many of the bones have been split lengthwise and metacarpals show signs of butchering. The animals appear to correspond to Iron Age cattle in size. One scapula showed trimming into a form of bone wedge.

Sheep or goat – Skull fragments indicate small horned sheep. Several adults and young represented.

Pig – A few butchered bones of a young animal.

Fowl – One bone.

Goose – Part of adult radius.

Stock Dove – Left ulna of an adult.

Dog – One metapodial of a dog of intermediate size.

Hedgehog – Five bones.

Fish – Large vertebra, probably from a sea fish.

Oyster – Numerous valves.

OTHER BONES

The bones from above the Roman bank are not listed since they could be either Roman or later. One item of interest is a slightly-worn human molar from Layer 5c. Birds represented in these layers include a large duck, fowl, goose, buzzard, crow or rook and jackdaw.

IVORY

An unusual find made in Layer 4 is a thin flake of elephant ivory cut longitudinally and with the transverse edge polished, coming from near the centre of the tusk. The piece is roughly semicircular, $2\frac{1}{4}$ ins. by 2 ins. It is stained green, by a copper compound. It is presumably a waste flake from the manufacture of ornaments. I owe this identification to Dr. J. Jewell of the British Museum (Natural History), and the spectrographic analysis was carried out by Dr. Hutchinson of the Museum's Mineralogy Department.

The Council of the Society wishes to acknowledge a grant towards the cost of publication of this article from the Royal Commission on Historical Monuments (England).

EXCAVATIONS IN LOW PETERGATE, YORK, 1957-58

By PETER WENHAM

SUMMARY

Three trenches, each 16 ft. to 17 ft. deep disclosed superimposed medieval and Roman structures. There were four Roman phases, one of wood and three of stone, in the three feet of soil immediately above the natural subsoil. The function of the Roman building, 120 yds. east of the Principia and alongside the Via Principalis, was not ascertained.

The next clear evidence of occupation were foundations of Anglo-Norman buildings, dated to c. 1000–1200. When these buildings were abandoned domestic rubbish accumulated on the site. This reached a thickness of 7 ft. to 8 ft. and contained quantities of pottery, animal bones (including the skeletons of two horses) and leather.

In about 1300, wooden piles 7 ft. to 8 ft. long were driven into this heap to stabilise it for the first of three successive buildings. The earliest, of c. 1300–1350, was associated with a horner's workshop, and part of a retting pit used to soak horns was found. The etymological significance of Hornpot Lane, the narrow alleyway which forms the southeastern boundary of the site, is thus made more clear. The second building was associated with two simple clay-lined furnaces used in bronze working. The latest medieval building, parts of which still survive incorporated into York College, dates to c. 1460.

Medieval finds of importance included pottery (in particular Saxo-Norman), leather sheaths and soles of shoes, and fragments of cloth.

I

INTRODUCTION

Three trenches (Fig. 2) were put down by the writer on the site of the demolished Fox Inn,¹ Low Petergate, York, in 1957 and 1958, before new building started on the site in 1958.²

This site was important for its Roman setting (Fig. 1), alongside the *Via Principalis* of the legionary fortress. Further, no excavation had previously taken place in the central part of the fortress.³ However, the post-Roman features encountered turned out to be more significant than the Roman. Two seasons' work were undertaken. In 1957 two trenches (Fig. 2: Trenches 1 and 2) were dug; the first week's work on Trench 1 was undertaken in June by 11 students of St. John's College, York, after which the excavation was at first carried on by workers employed by York Excavation Committee and then by student/labourers paid by the Ministry of Works. Pupils from York College for Girls helped throughout. The results were of such significance that the Inspectorate of Ancient Monuments of the then Ministry of Works sponsored five weeks' excavation of a further trench (Fig. 2, no. 2) in August and September 1957.⁴ Trenches 3A and 3B were dug in August and September 1958 by six paid student/labourers and numerous volunteers. This excavation was undertaken by the York Excavation Committee assisted by a Ministry grant.

¹ *Monuments Threatened or Destroyed*, R.C.H.M. 1963, pp. 71–2, with illustrations. The Fox Inn was No. 65, Petergate.

² Acknowledgement is made for permission to excavate to Miss H. C. Randall, then Headmistress, the Governors of the College, the architects (Messrs. Brierley, Syme and Leckenby) and the consulting engineer (Mr. J. Dobson).

³ Since this was written important excavations have taken place in York Minster which have revealed large parts of the *Principia*. Through the courtesy of Mr. Derek Phillips, Director of the York Minster Excavations, it has been possible to plot the conjectural plan of the *Principia* on Fig. 1.

⁴ For the students who assisted in this – drawn from the University of Cambridge, St. Mary's College, London, St. Peter's School, York, Bradford Grammar School and Nunthorpe Grammar School, York – the writer has nothing but praise for their enthusiasm and unflagging energy.

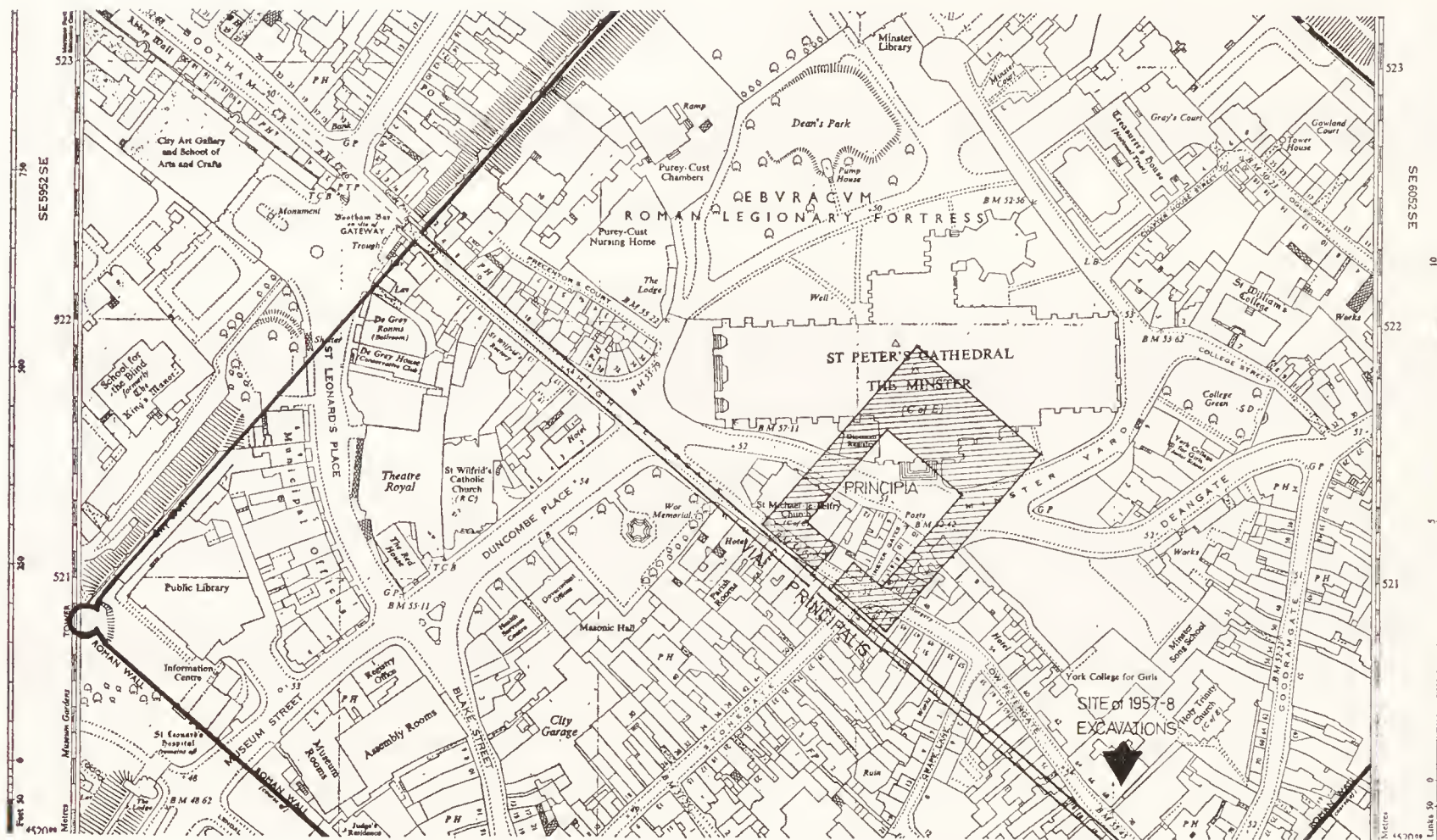


FIG. 1. Site excavated in relation to Roman fortress.

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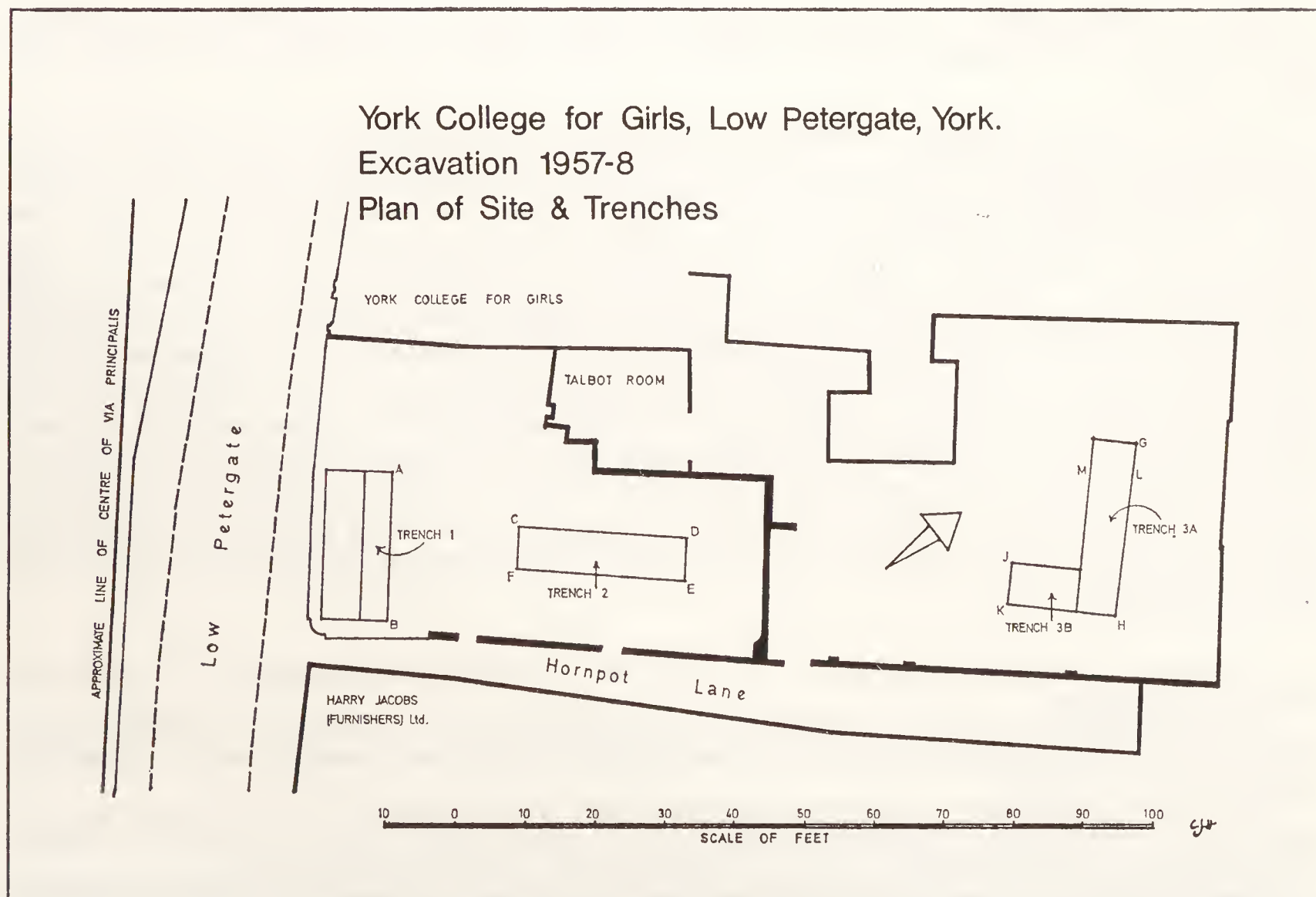


FIG. 2. Plan of site and trenches excavated, 1957-58.

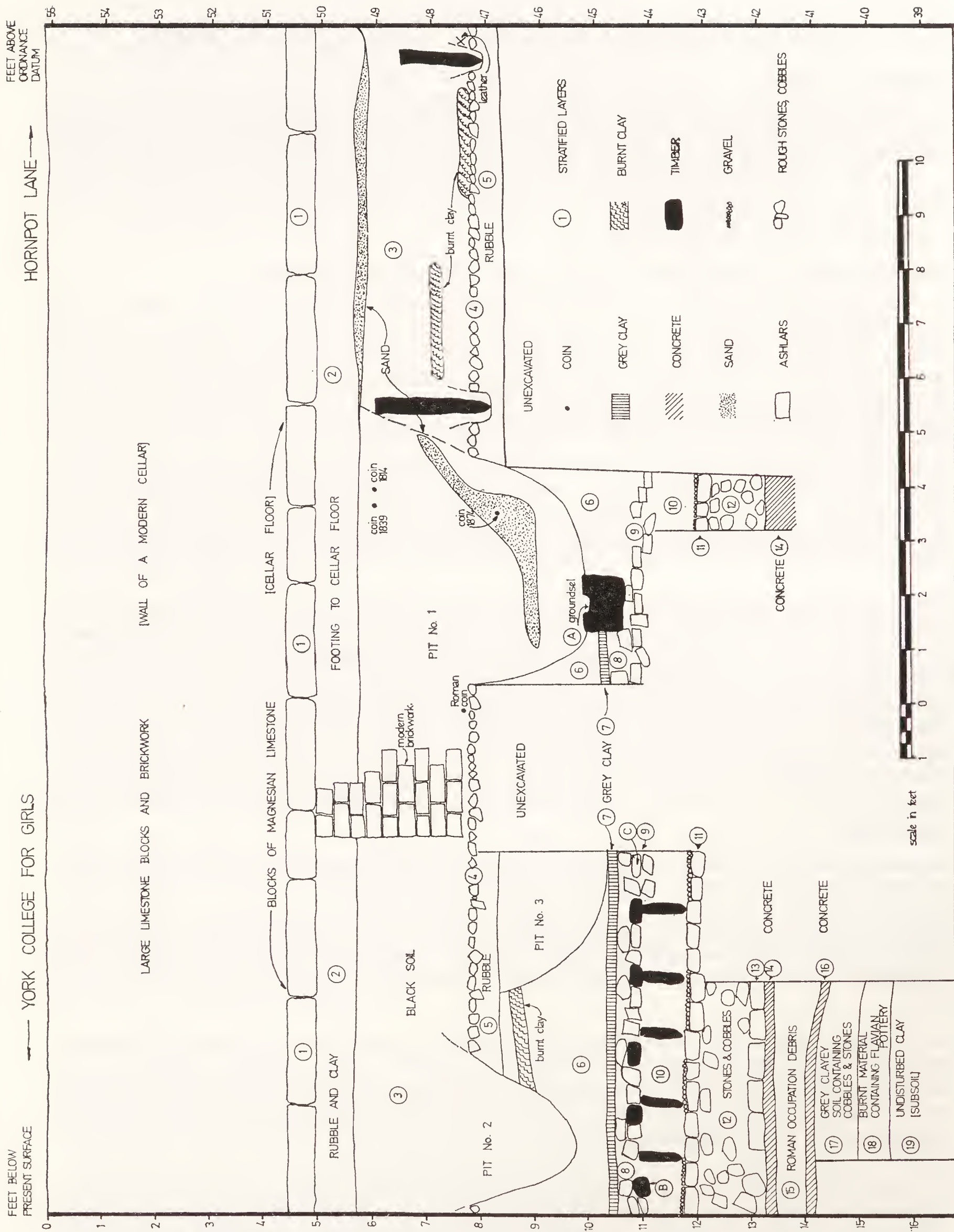


FIG. 3. Trench 1, 1957, Section A-B.

II

THE EXCAVATION – MEDIEVAL AND LATER FEATURES

TRENCH 1 (Fig. 3)

When the excavation began in 1957 an area 10 ft. by 21 ft. was available, parallel and close to Petergate (Fig. 2). This had originally been a cellar under the Fox Inn, and had been cleared during its demolition. The floor was 4 ft. 6 ins. below ground level and a trench 4 ft. wide (Trench 1) was cut through it. In only one area (4 ft. by 3 ft. 6 ins.) was it dug to the undisturbed natural grey boulder clay, which was encountered 15 ft. 7 ins. below the surface (Fig. 3).

Layers 1 and 2 (For the layers described here see the section in Fig. 3.)

The cellar floor (Layer 1) consisted of massive slabs of limestone, 6 ins. thick, resting on a bedding (Layer 2), of brown clay and/or brick rubble and/or sand, 6 ins. to 9 ins. thick. This floor sealed Pit 1, which reached 5 ft. 6 ins. below it and contained nineteenth-century sherds and four coins: a very worn second-century *sestertius* (possibly Antoninus Pius or Marcus Aurelius), two shillings, one of 1814, the other of 1839, and a halfpenny of 1874. The cellar floor was thus no earlier than 1874.

Layer 3, except where cut by Pit 1 and by modern brickwork, consisted of black soil 2 ft. 3 ins. thick. It contained numerous animal bones,¹ and decayed organic matter. In it, at its eastern end, were two patches of burnt clay, each 3 to 4 sq. ft. in area, one being 6 ins. higher than the other, and resembling hearths. The few sherds of medieval pottery found in this layer were mostly of pre-fifteenth-century date (see p. 112).

Layers 4 and 5, except where cut by Pits 1, 2 and 3, consisted of a cobbled floor (Layer 4) overlying 6 ins. of rubble (Layer 5) over the whole of the area dug. The cobbles were water-worn, 4 ins. to 6 ins. in diameter, while the rubble was of limestone and sandstone chippings in brown clay. Owing to the limits on the area excavated it was uncertain if this cobbling was the interior floor of a building or an exterior courtyard or road. On the cobbles was the leather sole of a pre-1600 shoe (Appendix VII:1). Pottery found below these cobbles dates them no earlier than the late fourteenth/early fifteenth century (see p. 112).² The stumps of five pointed birch stakes penetrated these cobbles and two appear on Fig. 3; their pattern and purpose were not clear. Layers 1, 2 and 3 are all post-1500.

Layer 6 was 2 ft. of black soil similar to Layer 3. One foot below its surface was a layer of burnt clay (cut by Pits 2 and 3), perhaps another hearth.

Layer 7 was 2 ins. of grey clay, with a scatter of charcoal and charred wood, in the western end of the trench. Its eastern edge was groundsel A (below); its western limit was outside the trench, and it appeared to be the floor of a building³ which had been destroyed by fire.

Layers 8 and 9 provided a base for Layer 7. Layer 8 was a thin non-uniform black soil, nowhere thicker than 4 ins., placed on Layer 9 to level up for the clay above. Layer 9, roughly dressed pieces of re-used Roman magnesian limestone, appeared throughout the central and western part of the trench. In Layer 8, and in places on the stones of Layer 9 were 3 inter-related features, *A*, *B* and *C* (Fig. 3):

¹ In the 1957 excavation no animal bones were retained for expert examination. They were kept in 1958 and the report on them has already been published – M. L. Ryder, 'The Animal Remains from Petergate, York, 1957–8', *Y.A.J.* xlii, Pt. 168 (1970), pp. 418–28. Referred to henceforth as *Ryder 1970*.

² There was a similar cobbled layer (Fig. 5, Layer 6) in Trench 2. It was, however, 5 ft. higher and at least a century later.

³ This feature – again associated with a groundsel – was subsequently found in Trench 2 at the same depth and doubtless formed part of the same building (see pp. 76–7). Another building of the same date was encountered in Trench 3 (see p. 84).

A This groundsel (Pl. I) of a timber-framed building was a massive piece of carefully-hewn oak roughly 7 ins. by 10 ins. in section. Only 4 ft. of its length (the width of the trench) appeared in the excavation. At its northern limit was a semi-circular groove $1\frac{1}{2}$ ins. deep in the middle and 5 ins. wide. This became shallower until, at the southern end, it disappeared and the section became a flange rather than a groove (Fig. 4): the differences can probably be explained by wear and decay. The central groove or slot would have held the timber, lath and plaster of the wall of the building. The upper part of the beam showed signs of burning.

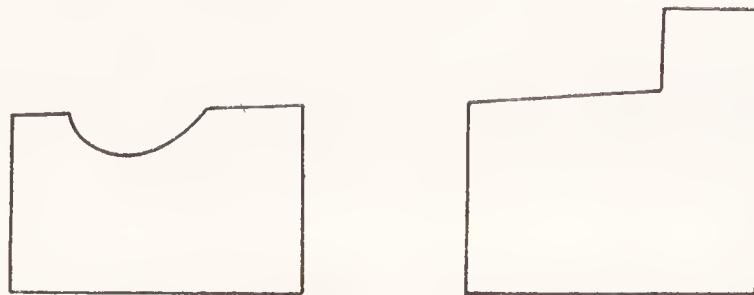


FIG. 4. Section of groundsel found in Trench 1.

B To the west of *A*, over all the trench, were roughly-cut oak boughs 3 ins. to 6 ins. in diameter: five are shown on Fig. 3. They formed a rough framework of lacing, on to and among which limestone blocks (*C* below) were laid. Although these blocks did not touch *A* they came to within an inch or two of it, and were clearly associated with it.

C These roughly-hewn pieces of Magnesian limestone (Layer 9), re-used Roman stones, were clearly related to the timber lacing (above) and with the layer (7) of compacted clay above them.

To sum up, these features were, firstly, the groundsel (*A*) of a timber-framed building, while the timber lacings (*B*), the stones (*C*) and the black layer (8) were the raft for the floor of compacted clay (Layer 7). This floor was only certain on the western side of *A*. On the east side was a layer of flattish limestone blocks level with the bottom of *A*. There were no timber lacings among them nor any evidence of a compacted floor above them. In Layer 7 was one sherd of Saxo-Norman pottery, tentatively dated to the twelfth century (Appx. IX, No. 13). More of the building was found in Trench 2 (pp. 76-7) where it also showed signs of burning. Of two large fires known in York, in 1069 and 1137, the sherd in Layer 7 fits the second better than the first.

Layer 10, a further layer of black soil, was found over the western 7 ft. of the trench. Like Layers 3, 6 and 8 it contained quantities of organic material, animal bones and oyster shells. In Layer 10 were stumps of five birch stakes, 3 ins. to 4 ins. in diameter, 8 ins. to 10 ins. long, and 9 ins. to 14 ins. apart, set in a row some 3 ins. distant from the northern side of the trench. They are projected on to the section (Fig. 3). Their pointed ends went down to, but not through Layer 11. They had been driven in after Layer 10 had accumulated, and probably formed piling below the floor of Layer 7 and its bottoming (Layers 8 and 9).

Layer 11 covered all the trench at this level, and consisted of magnesian limestone – re-used Roman ashlar – with a surface of apparently rammed gravel, which also filled gaps between the stones. Similar gravel was also found at the same depth on top of the fourth-century Roman wall in Trench 2 (p. 78) where it did not seem part of the original structure and may have formed part of a road surface (p. 86). These features in Trenches 1 and 2 may have been part of a roadway at least 25 ft. wide, roughly parallel to Petergate and on a slightly different course both to the Roman *via principalis* and the modern thoroughfare. However, the evidence for this road is slight, and is mentioned here only as a possible interpretation. It must date to before the twelfth century.

Layer 12, black soil 10 to 12 ins. thick, contained quantities of re-used Roman magnesian limestone, cobbles and fragments of Roman bricks and tiles, highly suitable as road make-up. It contained 12 sherds of Roman coarse grey ware, including two of calcite-gritted ware (not illustrated), and must have been a post-Roman deposit. If Layers 11

and 12 are part of a road, the latter, dating to possibly a century before the building found above it, must belong to about 900–1000.

Layer 13 consisted of five re-used Roman ashlar of magnesian limestone. They were placed close together and no mortar was found between or on top of them; it seemed unlikely that they had formed part of a wall. However, only five stones were seen, located in the side of the trench, so no firm opinion of their significance could be established. If they did form part of a wall it was certainly not Roman.

Layer 14. The five stones (above) rested on Layer 14, 3 ins. of concrete, presumably¹ Roman, and this, implying that they had no footings beneath them, suggests that they were not part of a Roman wall, if of a wall at all. A small cutting, 1 ft. wide (Fig. 3), was excavated in the middle of the trench and here the concrete was again found. It was at least twice as thick as at the western end of the trench.

TRENCH 2 (Figs. 5 and 6)

This was originally 28 ft. long and 6 ft. wide, but owing to the discovery of modern drains 2 ft. below the modern surface at the northern end it was there curtailed by 4 ft.

Layer 1² was 8 ins. to 13 ins. deep, and consisted of rubble and sand which was fairly modern. Two finds call for attention – a very worn penny of William III and a wooden toy figure about 2 ins. tall dated to *c.* 1800.³

Layer 2 was brown soil and rubble, 8 ins. to 10 ins. deep, and was little later than Layer 3 beneath it, which was dated to early in the fifteenth century. There were two notable finds:

(i) Three small fragments of alabaster carvings, two of which still bore traces of gilt. There were slight traces of the actual carving on one, but these were too small to enable any figures etc. to be identified.⁴

(ii) (Fig. 19, no. 1). Fragment of a large stone mortar, including part of the lip or spout.

Layers 3A, 3B and 4 (Fig. 5): below Layer 2 was a feature running along the entire length of the trench, except at the extreme southern end, where it was destroyed by a pit (Fig. 5, Pit 1, Layer 2A) and at the northern end where it was cut into by a modern drain. It consisted of parts of two hearths (Fig. 5, Hearths nos. 1 and 2) linked together by a floor of brown rammed gravel (Fig. 5, Layer 4). Over this was a spread of burnt material (Layer 3B) which, alongside Hearth 1 (as Layer 3A) had replaced the gravel. To be associated with these hearths and the floor were the footings and lowest course of walling of massive limestone blocks (Layer 3C of Fig. 6). These features, hearths, floor and walling, are discussed separately:

(i) *The Hearths* (Pl. II). These were fragments of apparently circular hearths made out of pieces of re-used thirteenth/fourteenth century roofing tiles set on edge, some still with peg holes. The tiles were $\frac{3}{4}$ in. thick, about 4 ins. deep as set in the ground, and varied in width from 4 ins. to 6 ins. Both hearths showed considerable signs of burning and bore fragments of coal [Appendix II(ii) and (iii)]. While the tiles of Hearth 1 were arranged in rough herring-bone fashion, those of 2 were in regular lines. On Hearth 1 (Fig. 5) there were sherds of fifteenth-century pottery (Appendix IX, nos. 31–46). Near the tiles of Hearth 2 were cobbles, some of which were clearly disturbed, but those still *in situ* formed most of a circular ‘hob’ like the complete one found in Trench 3 (1958: p. 81).

¹ When I wrote this report in 1958 I said that this concrete was ‘clearly Roman’. In view of recent discoveries in York Minster of concrete of post-Roman/pre-Norman date, the qualification is necessary.

² These numbers correspond to those on the sections (Figs. 5 and 6).

³ By permission of the Trustees of Church Schools Ltd., owners of York College for Girls, Mr. Robin Hill worked through deeds acquired by them at their purchase of the Fox Inn site. He found that one owner of the property was John Lund (born 1752, died before 1824). He is described first as a turner, but from 1785 as a toyman. Perhaps this figure was made by him.

⁴ This find was made soon after the discovery in Hungate of magnificent late fifteenth-century alabaster carvings, part of a reredos in some local church depicting scenes from the life of St. William of York. They had been buried doubtless at the Reformation, and are now in the Yorkshire Museum. See *Museums Journal*, 57/2 (May 1957), pp. 35–6; *Illus. London News*, 27 April 1957, p. 701; *ibid.*, 20 July 1957, p. 110; *Country Life* CXXIV, no. 3225, 6 Nov. 1958, pp. 1056–7.

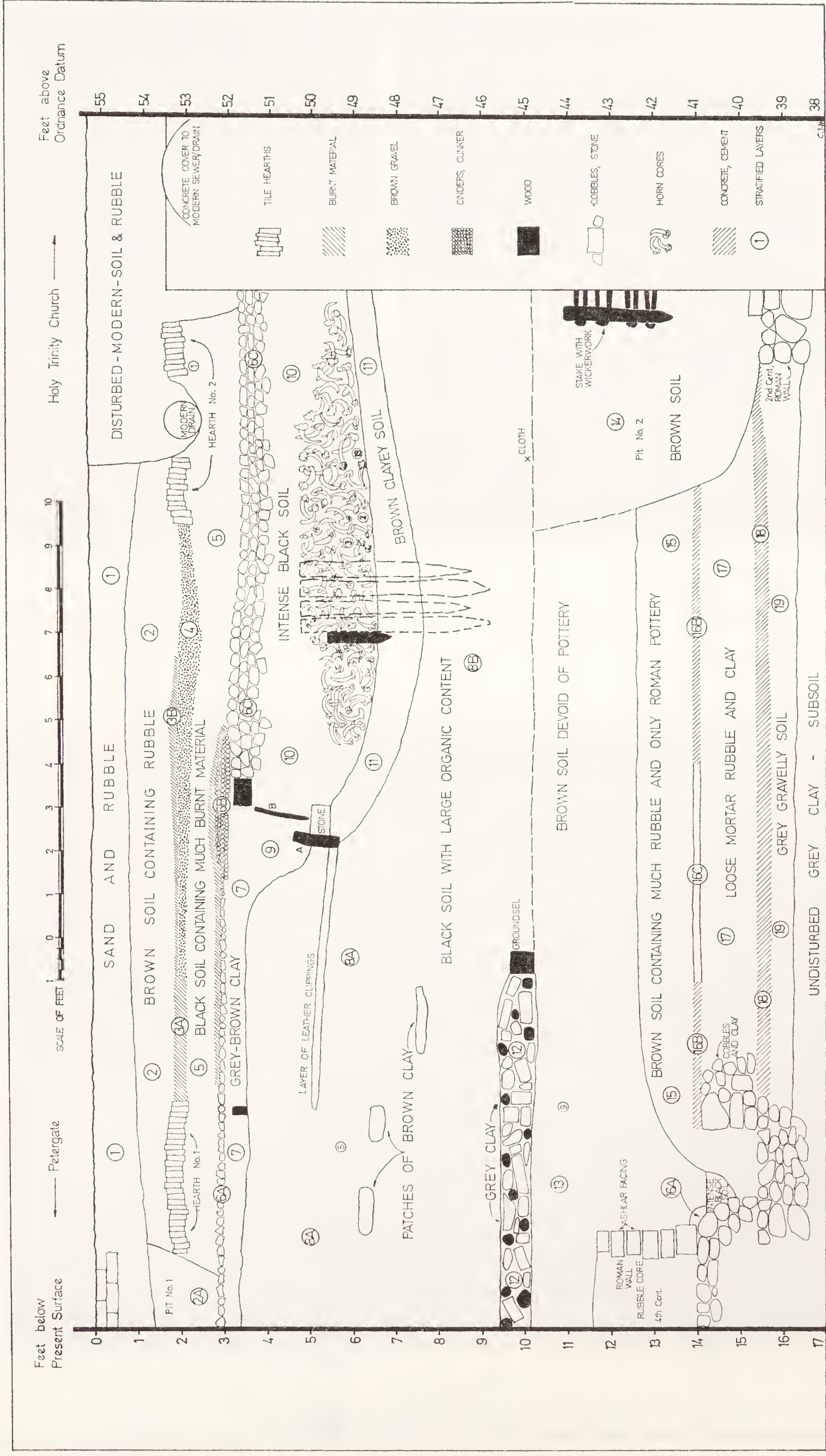


FIG. 5. Old Fox Inn. Trench 2, 1957, Section C-D (York College side).

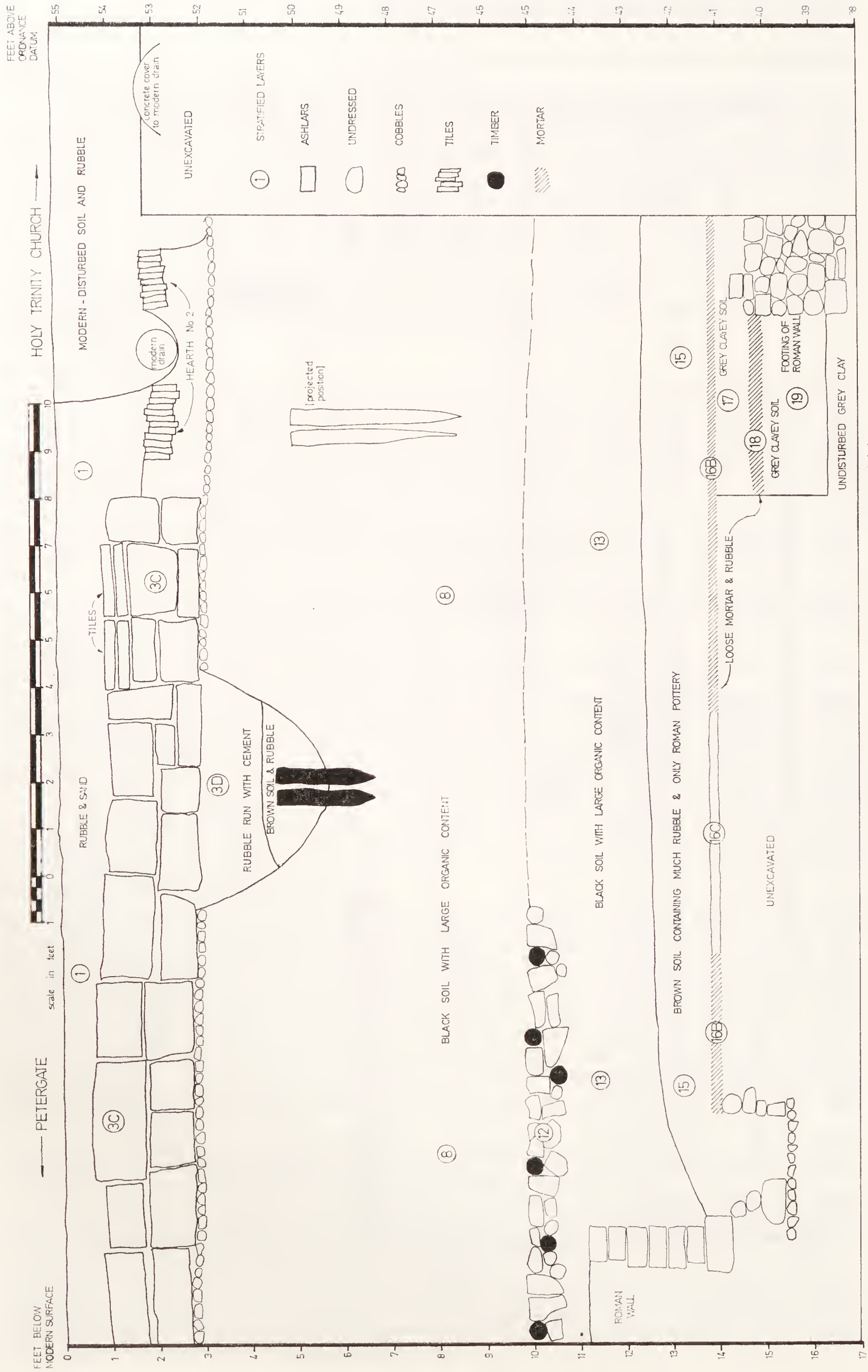


FIG. 6. Trench 2, 1957, Section F-E (Hornpot Lane side).



PLATE I.

Trench 1, Layer 8. Groundsel A of Anglo-Norman building.



PLATE II.

Trench 2, Layers 3/4. Tiled hearth No. 1.



PLATE III.

Trench 2, Layer 10. Horner's retting pit.

It is suggested below that both the 1957 hearths and the one 1958 hearth were originally as shown in Fig. 7. Among the burnt material of Layer 3B were the remains of a crucible; its contents have been analysed and may relate to the working of bronze (Appendix III).

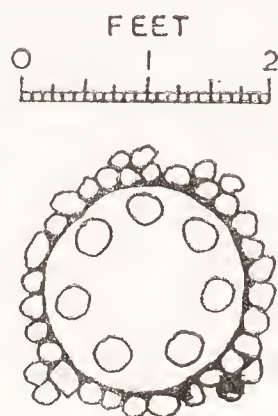


FIG. 7. Trench 2, 1957, Layer 3. Cobbled hob, part of large hearth.

(ii) *The stone walls.* Clearly associated with these hearths was massive stone walling (Fig. 6, 3C), built of roughly-shaped and irregularly-sized blocks of magnesian limestone surmounted by a few fifteenth-century bricks.¹ The wall was at least 3 ft. wide, but more lay under the unexcavated Hornpot Lane side of the trench.²

A return wall was also found. It was 3 ft. wide, but as it did not stretch right across the trench it does not appear in the section of the College side (Fig. 5), perhaps ending as a doorway, though no threshold was found to confirm this. Hearth 1 was clearly inside the stone structure represented by these walls, while Hearth 2 was outside it. However, it may have been enclosed by other walls outside the trench.

From the pottery found beneath them, the hearths and floor must have been of fifteenth-century date: Talbot House is closely dated to c. 1460.³ The hearths, floor and walling excavated may be part of a bakehouse or cookhouse of this adjoining house, although the crucible, apparently used in the working of bronze, suggests some industrial use.

In the section of the Hornpot Lane side of the trench was a hole (3D of Fig. 6) filled with limestone rubble. It could not be fully excavated but where sectioned it was 4 ft. wide and 3 ft. deep, tapering to a point. At the bottom were two large oak stakes or piles 5 ins. square and 2 ft. 6 ins. long. A connection with the nearby horner's retting pit could not be proved (see p. 74f.), although the hole was earlier than the stone wall and had been filled with rubble to stabilise the wall foundations. The pit was either contemporary with or later than the cobbled floor of Layer 6A-C (see below) and if it was indeed connected with the horner's manufactory this may have been the workshop floor.

(iii) *The Gravel Floor.* Between the two hearths was a layer (Fig. 5, no. 4) of brown rammed gravel of varying thickness. In the 3 ft. nearest to Hearth 2 it was 4 ins. to 6 ins. thick; it tapered away to less than 1 in., 2 ft. 6 ins. east of Hearth 1, and near the latter disappeared apart from a mere spread; here the floor consisted only of cinders and clinker from the hearth (Layer 3A). (The crucible and its contents were found on this layer at 3B – see above.) Over the whole of the gravel floor was a thin layer, $\frac{1}{4}$ in. to $\frac{1}{2}$ in. thick, of burnt material. Why the gravel floor increased in thickness near Hearth 2 became apparent when the retting pit (Layer 10, Fig. 5) below it was located later in the excavation (pp. 74-6, below). 32 cockle shells, one oyster shell and fragments of coal (Appendix II) were found in a crevice between a stone of the wall which ran down the Hornpot Lane side of the trench and another block of stone a few inches away, whose top was level with the surface of the gravel floor. Shells such as these may have been ground up to supply lime for the metal processing implied by the crucible and the hearths mentioned above.

¹ The size of the stone blocks may be indicated by the dimensions of 5 picked at random: 12 ins. by 12 ins. by 9 ins.; 20 ins. by 13 ins. by 7 ins.; 23 ins. by 18 ins. by 6 ins.; 21 ins. by 9 ins. by 6 ins.; 9 ins. by 9 ins. by 8 ins.

² It was examined in 1958 when the top 4 ft. of this area was stripped mechanically. The wall was in fact 3 ft. 6 ins. wide.

³ The spot heights of the two hearths were similar: no. 1: 53.5 ft.; no. 2: 54.85 ft.; that of the ground floor of the adjoining fifteenth-century Talbot room is 54.7 ft.

One foot below this gravel floor was a layer of well-placed cobbles (6A–C) which, apart from one small gap filled with compressed cinders and clinkers (6B), extended over the area excavated. In the central portion of the section (Fig. 5), around the clinkers of 6B, were signs of intense burning, presumably representing the site of a hearth. This cobbling was in two clear zones. In the southern half of the area excavated was a single layer (6A) of cobbles 2 ins. to 3 ins. in diameter, closely and carefully laid on *Layer 7*, grey-brown clay 6 ins. thick. In the remainder of the trench (6C) the cobbles were larger, 3 ins. to 6 ins. in diameter, were not quite so closely laid, and overlay a foot-thick mass of cobbles of about the same size. These two cobbled areas were probably put down at the same time, 6B being thicker because it overlay a horner's retting pit (below, pp. 74–6). It is just possible, however, that they are of different dates and that the single layer of cobbles (6A) represents the floor of the workshop into which the retting pit was cut.

Below this floor (Layers 6A–C) were two different and distinct features. In the southern 12 ft. of the trench there was 7 ft. of black evil-smelling soil (*Layer 8A*), described below, while the remainder of the trench consisted of a filled-in pit, which from its contents and its locality alongside the significantly-named Hornpot Lane, could be associated with a horner's manufactory. *Layer 8A* (Fig. 5) contained quantities of animal bones, mostly ox, sheep and pig,¹ and decayed organic matter, and looked like rubbish from domestic buildings, stables and animal-byres. The numerous finds included:

- (i) Numerous sherds of pottery (Appendix IX).
 - (ii) Soles and parts of the uppers of about 50 shoes of twelfth–fourteenth century date (Appendix VII).
 - (iii) Three leather sheaths of scabbards for knives or daggers (Appendix VI).
 - (iv) Hundreds of leather clippings – probably from a shoemaker's workshop (see p. 96f.). In one part of the trench these clippings were so numerous and so compacted by the weight of the soil above them that they formed a distinct layer – 3 ins. to 4 ins. thick – as shown on the section, Fig. 5.
 - (v) Metal objects
 - (vi) Miscellaneous objects
- }(Figs. 20 and 21).

Vat or Retting Pit (Pl. III, Fig. 5, Layer 10)

It must be emphasised that only part of this pit was encountered, so its full dimensions could only be estimated, and as some, if not all, of its perimeter was of wood and not all had survived, details of construction are partly conjectural. (This is truer of the divisions inside it, if they did originally form part of it.) Further, the section (Fig. 5) gives only a limited picture and the feature must be considered with the following text and with Pl. III.

The main details were:

1. A shallow pit (or pits) 2 ft. to 3 ft. deep and at least 12 ft. and not more than 14 ft. to 16 ft. wide with a 6 ins. to 12 ins. thick floor of brown clay. There was no evidence that this floor had ever been lined with stone, wood or any other material. The lower part of the perimeter wall was no more than a slight upward curve of the clay floor,² surmounted by a single block of stone of about 10 ins. by 10 ins. by 10 ins. The upper part consisted of horizontal wooden planks placed on edge (A)³ held by being wedged into the clay below and behind the stone (see above) behind. Plank A. measured 12 ins. by 4 ins. in section: on its inner side were thin boards or laths, varying in width from 2 ins. to 6 ins. and in length from 8 ins. to 15 ins. (B). One of these retained an iron nail and an iron rivet (Pl. III). These boards were splayed out and away from the horizontal beam due to the filling of soil and cobbles thrown from above when the pit was abandoned.

¹ These were not retained and no report on them is forthcoming.

² Mr. R. Patterson, Curator of the Castle Museum, York, suggested that these sloping sides were induced by the raking of the contents of the pit from the centre towards the side.

³ These letters relate to Fig. 5.

2. Wedged beneath the horizontal plank (A) and apparently still *in situ* were two semi-circular ridge tiles (Pl. III), laid end to end, which, from their position and slope, must have served as an inlet channel to the pit. However, as they were a foot below the top of the pit as represented by the tops of the upright boards (B), it is possible that the latter may represent a raising of the walls of the pit after its initial construction. Thus the tiles may have been buried before the pit was finally abandoned. This would imply that the topmost 2 ft. of Layer 8 had been added later than the rest of this deposit, to raise the floor level to the top of the 'new' pit. However, this 2 ft. of soil could not be differentiated stratigraphically from the rest of the layer, nor was there any indication of a 'floor', level with the inlet tiles. The cobbles of 6A may represent the floor alongside the deepened pit but this, again, was not established in the excavation.
3. Three feet from the wood of A and B inside (or in the side of) the pit were 8 massive oak piles (Pl. III), 4 of which have been projected on to the section in Fig. 5. All had pointed tips penetrating 2 ft. to 3 ft. through the clay floor below, while their tops were roughly level with each other and with the top of beam (A). Three were re-used building timbers with mortices and peg-holes, while the remainder were roughly-trimmed branches or trunks of trees. 3 ft. away from these piles were two more, alongside the Hornpot Lane side of the trench (Fig. 6), probably a second and similar clump of piles.

Close to one of the piles of the complete (northern) group were two narrow boards standing upright *in situ* which apparently linked up with a fragment of wood jutting out from the unexcavated trench side; this may have been a horizontal plank to which the uprights had been fastened. The latter were paralleled by those found on the perimeter of the pit at B (above).

4. Lying in the bottom 2 ft.¹ of the pit on the clay 'floor' were about 250 horn cores of oxen and goats, with two red-deer antlers,² concentrated on the College side of the trench. This was a horner's retting pit, in which horns had to be soaked or retted for about six weeks.³ This implies a series of pits containing horns at different stages of soaking, to ensure that some were always ready for use. Four of the horns had had their tips cut off, the rest were entire.
5. Other objects in the retting pits were:
 - (i) One hazel nut (not illustrated).
 - (ii) Bronze ribbon. Fig. 20 and Appendix V, nos. 12, 13.
 - (iii) Pottery. Some 500 sherds of pottery were found in the pit (Appendix IX); Mrs. Jean Le Patourel dates them twelfth-fourteenth century.

Layer 8, into which the pit is cut is dated by the pottery to the twelfth-early thirteenth centuries (see p. 109). The *terminus post quem* for the pit seems therefore to be c. 1250. The *terminus ante quem* was before c. 1460, the date of the Talbot House which was built over part of it, and the remains of which still exist, incorporated into York College for Girls. But after the abandonment of the pit and before the building of this house were two other occupations represented by the cobbled floor (Layer 6) and the hearths and gravel floors (Layers 3 and 4) of Fig. 5. Layer 4 produced a few sherds of pottery assignable to the period c. 1400 (see pp. 112-13). It thus seems probable that the pit was abandoned around 1400.⁴

The section (Fig. 5) shows that the thickening of the cobbles (Layer 6c) below the cobbled floor over this pit begins at or near beam A and its attendant upright laths (B).

¹ The filling of the upper part of the pit (Layer 10) consisted of black soil which was indistinguishable from that of Layers 8A (outside the pit) and 8B (below it).

² Ryder 1970.

³ This does not rest only on the 1957-8 excavations. The name of the adjoining lane - Hornpot - with other literary evidence for this area is significant; see Wenham 1964.

⁴ The Lay Poll Tax Return for York dated 1381 names five horners in the City, three of whom were in the Parish of Holy Trinity, Goodramgate, the parish in which the area excavated is situated. It has been suggested (Wenham 1964) that it was one of these who was last operating the pit.

When the pit was abandoned and filled in, the subsidence which was anticipated presumably led to the extra thickness here, and indicates that the filling-in of the pit and the laying of the floor over it were contemporaneous. Subsidence did however take place for when, at a still later date, the hearths and their floor were put down, it was necessary to deposit brown gravel (Layer 4) to rectify this. Over the pit it is up to 8 ins. deep but tapers away at the south end to nothing.

It is possible that the central group of piles marked the eastern edge of the pit, for the thickened cobbling did not extend right across the trench on the Hornpot Lane side; beyond the central piles it consisted of only a single layer of cobbling.

It will be useful to include here a summary of the evidence of Trenches 2, 3A and 3B together (for the last two see pp. 78-85). In this area alongside Hornpot Lane there was, during the eleventh/twelfth-fourteenth centuries, a steady deposit of rubbish represented by the 5 ft. to 6 ft. stratum of black soil of Layer 8 of the excavations (see Figs. 5, 6 and 9). At the end of the fourteenth or early in the fifteenth century piles, consisting mostly of re-used building timbers, were driven into this deposit presumably to consolidate it. These were put down in clumps (normally 8 to 10 to each clump) 3 ft. to 4 ft. apart, so that a structure could be built on top of the consolidated rubbish. If – as seems probable – this building included a horner's manufactory, retting pits in which the horns were soaked would have to be dug. From the archaeological evidence these seem to have been divided into compartments by wooden partitions of thin vertical laths attached to more substantial horizontal beams. If the piles had already been driven in before the retting pits were dug, during the digging of the latter the piles would be encountered and could be utilised as uprights to which the internal partitions in the pits were attached. Such an explanation fits the facts from both years' excavations.¹

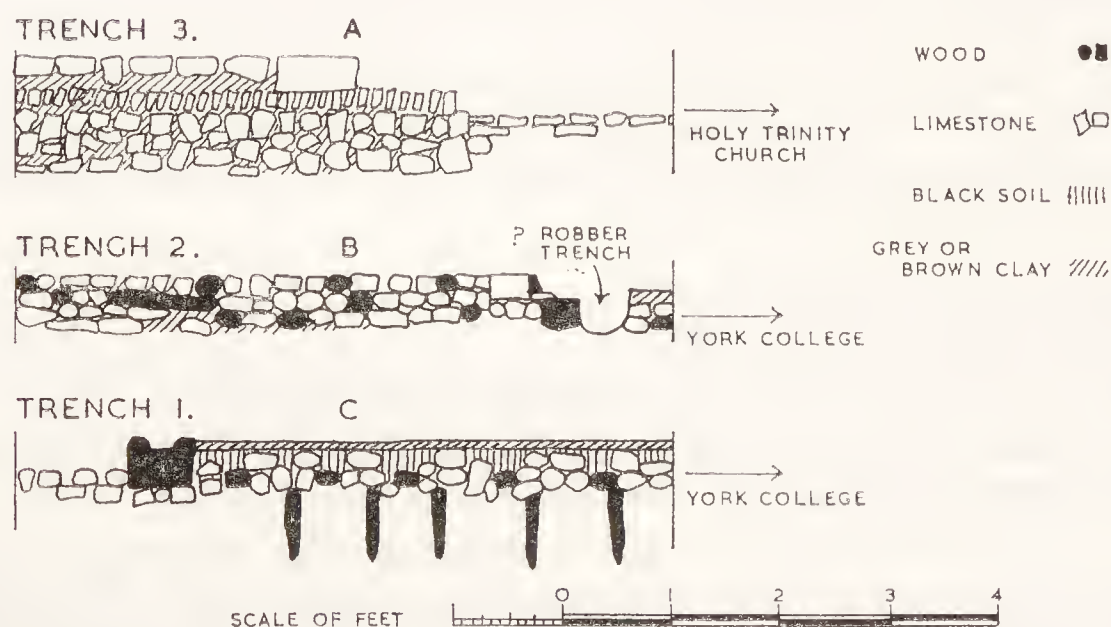


FIG. 8. Sections across Anglo-Norman building foundations.

Layer 12. Late Saxon/early Norman building (Pl. IV)

At a depth of 9 ft. 4 ins. there was a further portion of the late Saxon/early Norman building found in Trench 1 (see pp. 68-9). At the south end of the trench an 8 ft. 2 ins. length of timber groundsel was found at the same level and on the same alignment (see Fig. 10) as the 4 ft. length in Trench 1. It was again of oak but was much more decayed and was only about 7 ins. square. The 14 ins. length of another groundsel which joined the above at right angles was also visible (Fig. 9). It became clear that this was the furthest extent of the building on this northern side.²

¹ For the problems of the retting pit, the processing of horn in the Middle Ages (and up to the twentieth century), the history and organisation of the Horners' Guild in York, the Freemen belonging to it (since 1309) and attendant matters see the writer's 'Hornpot Lane and the Horners of York', *Annual Report of the Yorkshire Philosophical Society, York, 1964*, pp. 25 to 36. (Wenham 1964).

² What must have been yet another Saxon/Norman building was found in Trench 3A (see pp. 84-5).



PLATE IV.

Trench 2, Layer 11. Foundations of Anglo-Norman building.

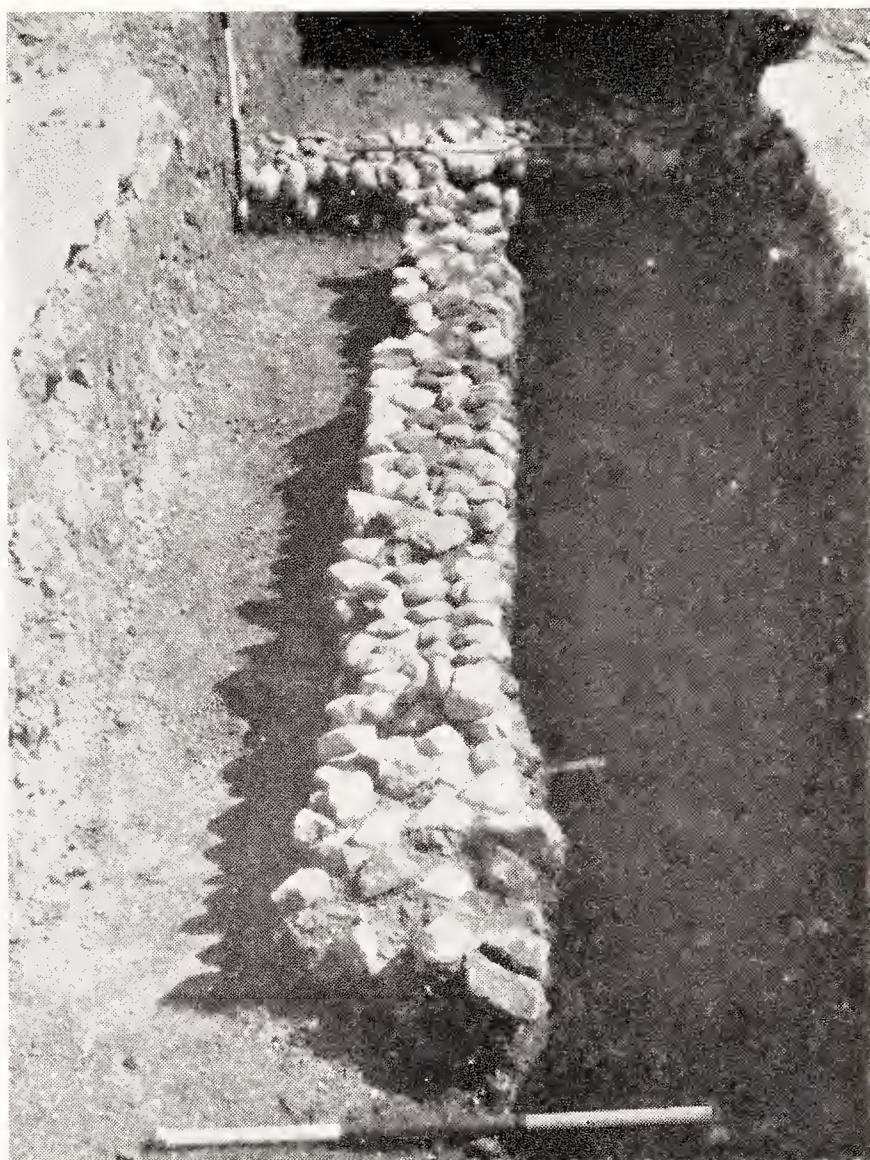


PLATE V.

Trench 3, Layer 4. Foundations of fourteenth-fifteenth century building.



PLATE VI.

Trench 3, Layer 5. Medieval furnace.



PLATE VII.

Trench 3, Layer 8. Wooden tree, showing underside.

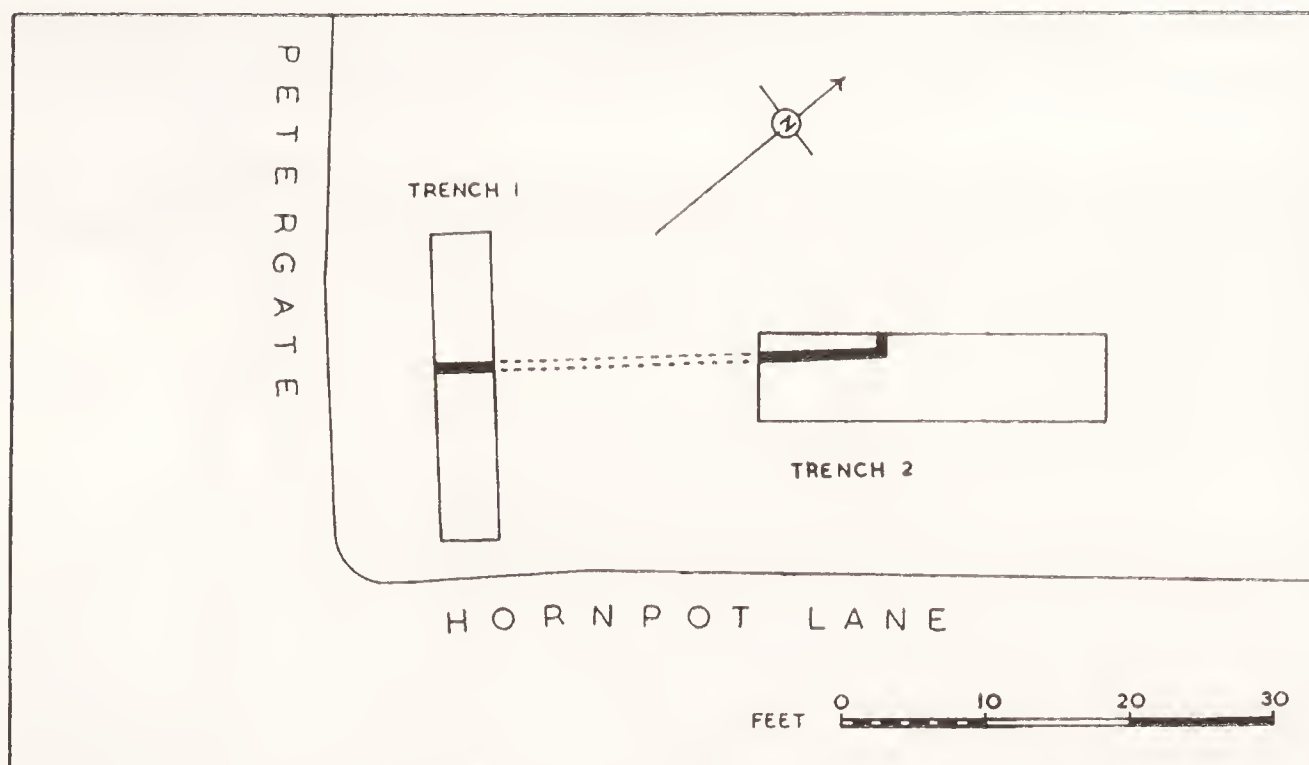


FIG. 9. Relationship between the groundsels in Trenches 1 and 2.

On both sides of the longer of these two groundsels were similar though not identical features. Rough pieces of magnesian limestone were interlaced with oak branches 3 ins. to 6 ins. in diameter; on the College side this was covered by a thin layer of compacted grey clay, probably a floor. On this same side alongside the groundsel and running its whole length was a probable small robber trench; originally it may have held a line of larger and more regularly-shaped limestone blocks, removed at some time after the building was abandoned. On the Hornpot Lane side of the groundsel the raft was not covered by clay, and its surface was 2 ins. higher than the top of the clay on the other side. Parallel with the longer groundsel and just overlying its edge were five limestone blocks set in a straight line, and alongside them were the decayed remains of what looked like a retaining board (Fig. 8.3). (As this was too decayed to show clearly on a photograph a cord was laid on it to show its position: Pl. IV.) There were no traces of a similar board at the end of the building on a line parallel to the shorter groundsel. The timber lacings on the south side of the groundsel – some of which would have represented the surface of this floor – suggested an inside rather than an outside floor. (Covered with rushes it would be as serviceable as that covered with grey clay and described above.) It was presumably the floor of another room of a single building rather than that of an entirely different one alongside. One fragment of Roman decorated Samian ware was found on this floor (Appendix VIII, no. 1).

This building is dated by the Saxo-Norman pottery beneath it (Layer 13). Like the groundsel in Trench 1 the two found in this trench showed signs of burning and both the floors bore fragments of charcoal. The evidence of the pottery would not conflict with destruction in the fire of 1137 (see p. 69 above).¹

¹ The following discovery, made in 1705, seems to relate to a building of similar construction and date: Concerning some Norman ruins found at York [communicated] by Mr. Ralph Thoresby.

A gentleman designing to build on a piece of ground he had bought in High Ousegate, York, had labourers to remove the rubbish of a former house, which with about 30 more were burnt down 3 April 1694. In digging below the foundations of the former house they discovered at a considerable depth the foundations of an older fabric very probably unknown to the builders of the later house. These lower foundations were very well supported at several angles with good oak piles, some of which were still sound; besides these piles there were several large timber trees, that lay athwart to make the stronger foundation: between the head of two piles in this lower foundation the workmen found a small decayed oaken box, in which had been hoarded 200 or 250 Norman coins . . . The coins were almost entirely of William I. (*Philosophical Transactions of the Royal Society* xxiv for 1705, no. 303, p. 2, 127–1809 Abridgement v., p. 253).

Mr. Robin Hill of the Huntley Museum, Edinburgh, has kindly drawn my attention to a reconstructed farmstead (from True, East Jutland) which has been re-erected in the Frilandsmuseet (Folk Museum), Copenhagen, Denmark. It dates c. 1670. The groundsel of the timber-framed building rests on stones, which is very reminiscent of the groundsels of the Saxo-Norman buildings described in this Petergate, York, excavation.

Below this building was a layer (13) of black soil 2 ft. 6 ins. thick. Besides the sherds of Saxo-Norman pottery found in it and noted in the previous paragraph, this layer contained:

- (i) 33 sherds of Roman pottery as follows: 8 Samian (Appendix VIII, nos. 2-9); 7 mortaria (Appendix VIII, nos. 4-17); 19 miscellaneous coarse ware, third and fourth century date, one described and illustrated in Appendix VIIIC (no. 16).
- (ii) A fragment of a Roman *tegula* (not illustrated).
- (iii) A jet? bead (Fig. 20, no. 16).
- (iv) Bronze stud-like object (Fig. 20, no. 15).

Beyond the north end of the Saxo-Norman building it was impossible to differentiate between Layers 8A/8B and 13, so the dotted line shown on the sections (Figs. 5 and 6) is arbitrary. At the northern end of the trench was a hole or pit (Fig. 5, Layer 14, Pit no. 2) which was encountered in only one half (College side) of the trench. It looked like a robber trench associated with the removal of stones from the footing of part of the earlier of the two Roman walls encountered. The date of this robber pit could not have been later than the Norman building and, in fact, might have been dug to obtain the Roman stones used in the timber/stone 'raft' which supported it. Later than the hole and inserted into the upper part of its filling was the upright stake and wickerwork¹ – all of birch – found only a foot inside its northern limit (Fig. 5). The only finds in Layer 14 were two sherds of Saxo-Norman pottery (York ware) (see Appendix IX), and 3 sherds of Romano-British pottery, one plain Samian Form 27, one of a mortarium, and half a handle of an amphora. The Roman pottery was of no intrinsic nor stratigraphical significance and is not illustrated.

One of the most important finds of the excavation was made in Layer 8B only a few inches above the top of this pit (Layer 14) – the nine pieces of cloth which are described in detail in *Ryder 1970*. It would seem therefore that the cloth was contemporary with the nearby Norman building or with its destruction.

TRENCHES 3A AND 3B (1958)

These trenches were 6 ft. wide: 3A was 25 ft. long and 3B was 10 ft. long, at right angles to and adjoining 3A. The section published (Fig. 10) is that of the Holy Trinity Church (northeast) side of the trench and, unless otherwise stated, the descriptions of layers relate to it.

Layer 1 – only existing in half the trench – was modern concrete, 2 ins. thick, overlying 5 ins. of brick rubble, *Layer 2*. A 6 ft. length of footings, of an outer wall of the building of whose floor these layers formed part, ran across the trench (Fig. 10). Until abandoned a few years ago, this building was a small printing works.

Layer 3, varying in depth from 1 ft. to 3 ft., was of black soil containing some building rubble. It represents the gradual accumulation of rubbish and débris from the fifteenth century (*Layer 4*) to the present day. The sparse pottery found in it (none drawn) supported this conclusion. Both *Layer 3* and *Layer 4* were cut into by large pits (Pits I, II and III, Fig. 10) which, from their contents, dated to the nineteenth (Pit I) and fifteenth/sixteenth centuries (II and III) respectively.

Layer 4 was brown soil containing rubble and burnt material, and was associated with cobbles placed in a U-shaped foundation trench 18 ins. deep, the footings of a timber-framed building. This cobbling was also present on the 10 ft. long face of the College side of Trench 3B, in a 19 ft. length at the College end and almost in the centre of Trench 3A (see Fig. 11 and Pl. V). The gap in the cobbling at X on Fig. 11 was caused by a pit dug into it; the gap at Y, however, was not. The cobbling on both sides of this gap was

¹ This is reminiscent of features found in a similar historical horizon during excavations in the cellars of Messrs. Chas. Hart in Feasegate/Market Street; *Y.A.J.* xxxix (1958), pp. 419–425. There the stakes and wickerwork were clearly associated with rubbish pits.

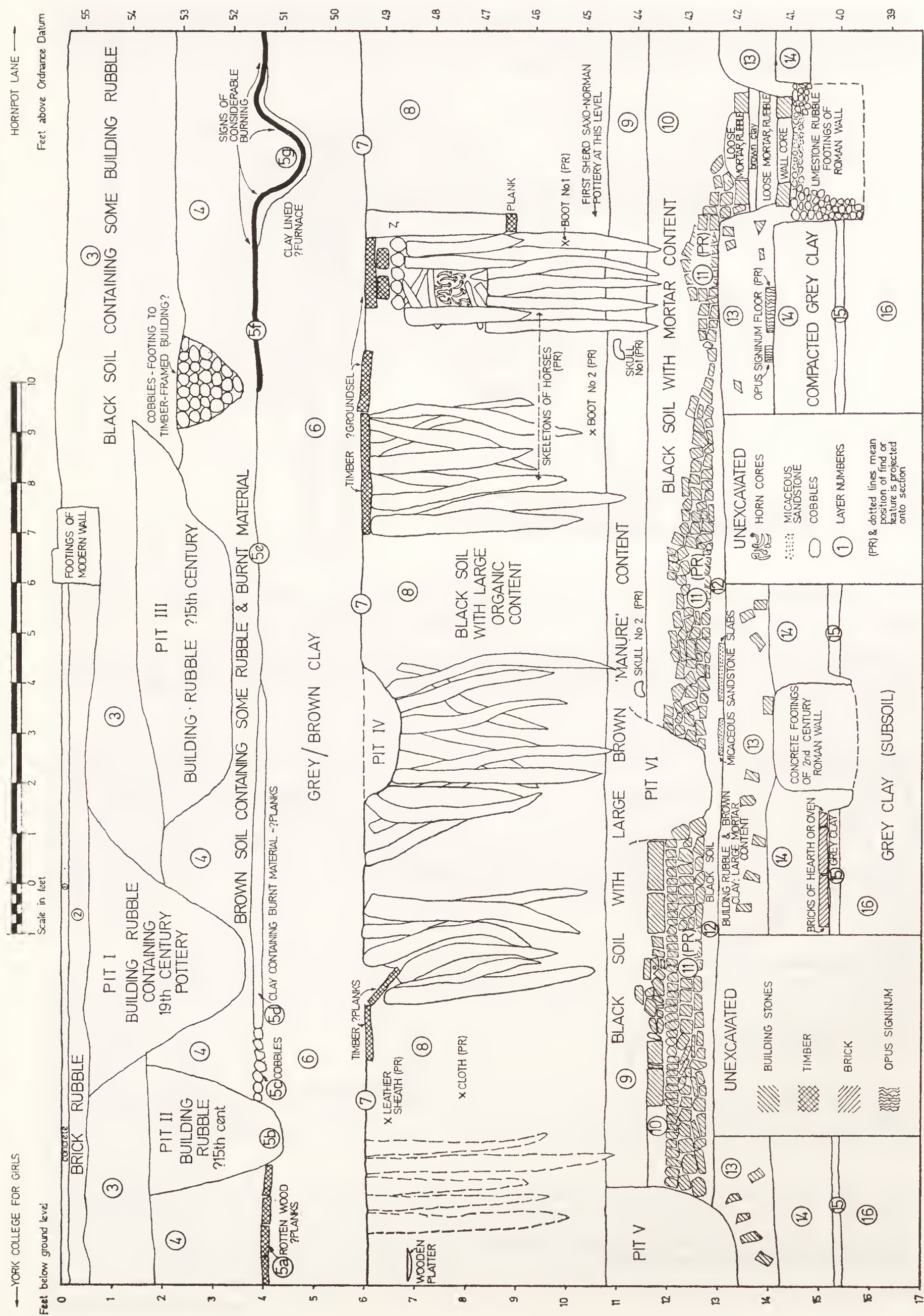


FIG. 10. Trench 3A, 1958, Section G-H (Holy Trinity side).

straight sided, while at Z (Fig. 11) were fragments of fourteenth/fifteenth century re-used roofing tiles built up one on top of the other, as if to ensure a vertical side. Nothing was found in this gap to indicate its purpose.

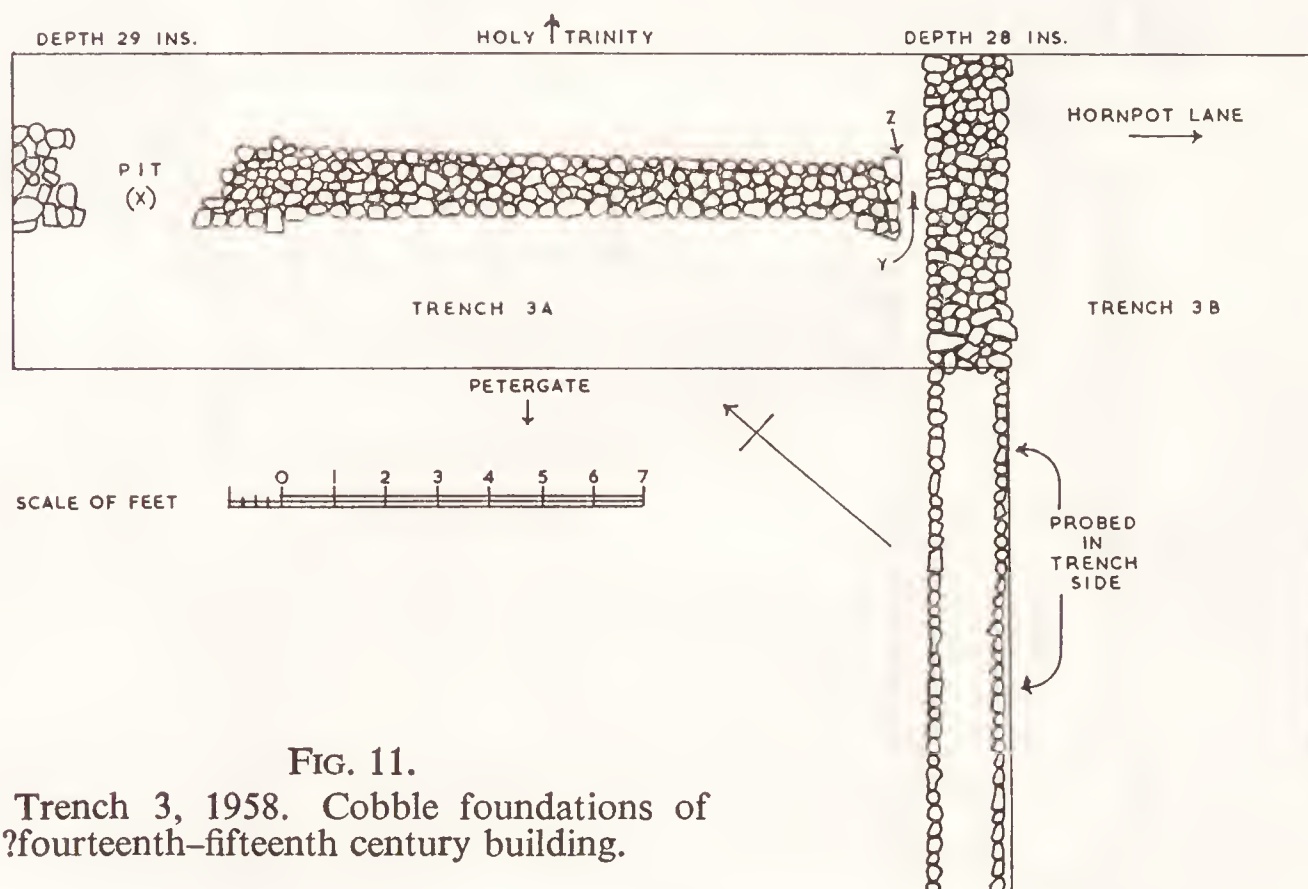


FIG. 11.

Trench 3, 1958. Cobble foundations of ?fourteenth-fifteenth century building.

The cobbles averaged 3 ins. to 4 ins. in diameter, though a few were larger, and filled the foundation trench; they were not bound together by mortar or clay.

The pottery of Layer 4 which supplies the *terminus post quem* for this second structure of the excavation was late fourteenth or early fifteenth century (see Appendix IX, pp. 112-13).

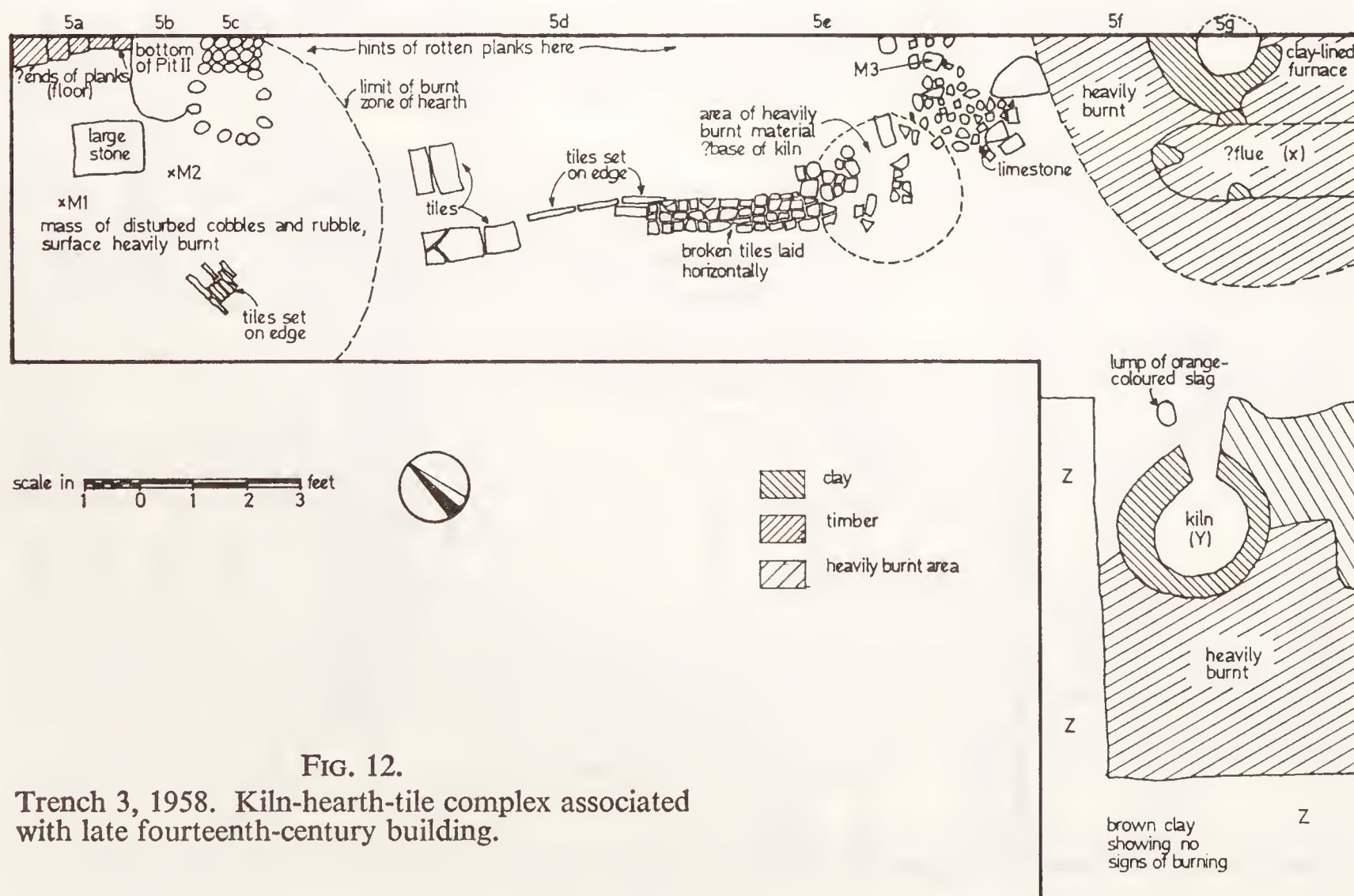


FIG. 12.

Trench 3, 1958. Kiln-hearth-tile complex associated with late fourteenth-century building.

Layer 5. An earlier structure was linked with Layer 5. Although complex, it consisted of a number of apparently related features shown in the section (Fig. 9), in the plan of the trenches drawn at this level (Fig. 12) and in Pl. VI.

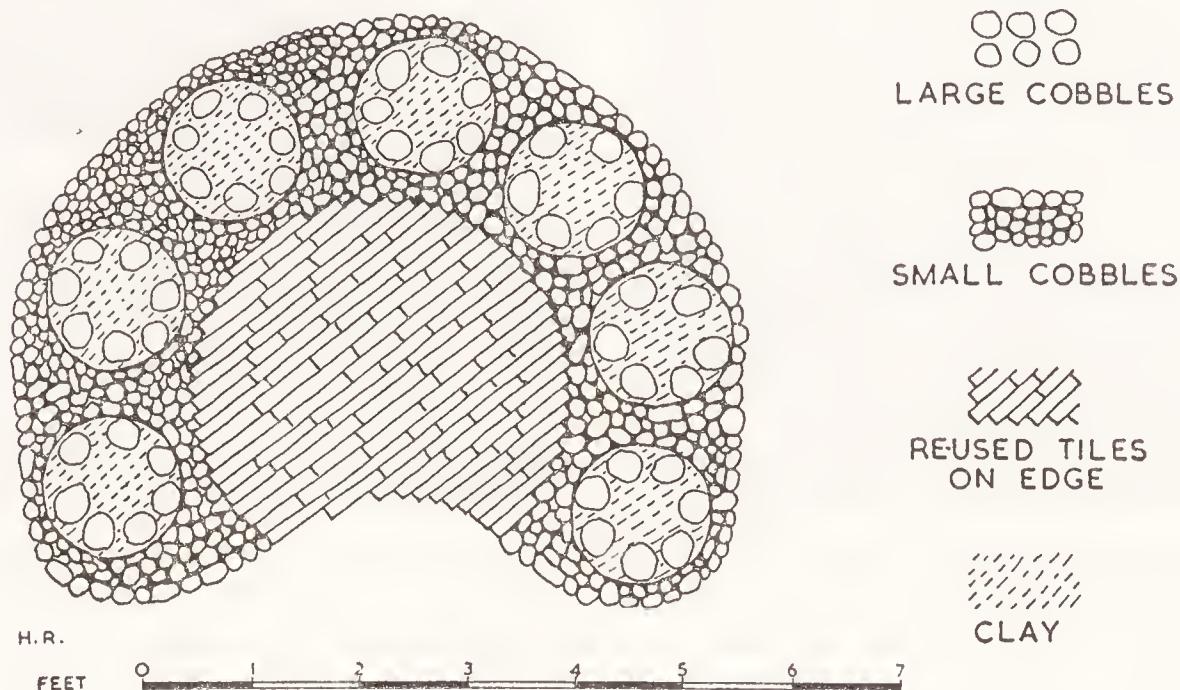


FIG. 13. Trench 3, 1958, Layer 5. Cobble/tile hearth reconstruction.

Layer 5A was rotten wood, 1 in. to 2 ins. thick, originally perhaps planks forming part of the internal floor of a building.

Layer 5B was the bottom of Pit II which had cut into and destroyed the feature in this sector.

Layer 5C shows in section (Fig. 10) as a short layer of seven cobbles. The excavation as a whole showed, however, that it was part of the perimeter of a large (? circular) hearth of cobbles and re-used roofing tiles on edge. Alongside the cobbles was burnt material (5D) associated with it. The Petergate section of the trench (not drawn) showed a thickening of this burnt material, indicating that the hearth extended further in that direction. Coal, charred wood and clinker were found in the débris.

This hearth, although more fragmentary, resembled that found 50 ft. away in Trench 2. The characteristic circle of cobbles about 18 ins. in diameter was repeated, arranged as in Fig. 7, and there were thus three large circular hearths, all consisting of cobbles and re-used roofing tiles set on edge, with circular hobs of cobbles placed at intervals around the central fires. Originally the hearth may have resembled that shown in Fig. 13. The hobs could have supported cauldrons etc., which were heated in these positions or, more likely, left to simmer there after being brought to the boil in the middle.

This 1958 hearth had been badly damaged. When the few remaining surface cobbles still *in situ* were removed the area underneath and immediately around it was a mass of cobbles, rubble and large limestone blocks (the largest is shown in Fig. 12). Among the cobbles etc., removed in this area were fragments of two stone mortars (Fig. 19, nos. 3 and 4).

Layer 5D was a burnt zone alongside the hearth (see above.) Here again – particularly in the area furthest from the hearth – there were pieces of rotten wood (see 5A above) which might have belonged to a wooden floor. (They were, however, much less articulated than at 5A.)

Layers 5E, 5F and 5G consisted of a layer of compacted brown clayey soil (5E) which, at the Hornpot Lane end underlay a thin layer of burnt material (5F) – charcoal, coal and fragments of metal slag, and was cut into by a small furnace (5G). Enough was available for excavation to indicate that it was about 1 ft. deep and 1 ft. in diameter. It was lined with 1 in. to 2 ins. of brown compacted clay and was blackened by prolonged and intensive burning.

Lying on 5D and 5E were roofing tiles of various shapes and sizes; some were laid on edge, others flat, and some had been disturbed. Though incoherent, they appeared to be a deliberate feature (Fig. 12). They showed no signs of burning nor was any peculiar débris found amongst them. They ran roughly centrally down the trench excavated from near the hearth (5C) for about 10 ft. where they joined a mass of rubble and stones. Part of this area, roughly 3 ft. in diameter, showed signs of burning. In Trench 3B, only 6 ft. distant, a furnace with a similar base measurement and construction was found at this same level, implying that this in 3A was the base of a furnace.¹

The purpose of these tiles in Trench 3A is uncertain. They were re-used roofing tiles, many with mortar still adhering; the feature of which they were part cannot be after the late fourteenth century, and slightly resembled the 'channel' running into the horner's retting pit found in Trench 2 (pp. 74-6); in fact one tile was similar to the two ridge tiles forming that channel.

In Trench 3B, in the same horizon as this Layer 5 in Trench 3A, were other features close to the furnace (5G) and related to it. The first was probably a clay-lined flue (Fig. 12X); the other was a small clay-lined furnace or kiln with flue adjoining (Fig. 12, Y, and Pl. IX). Around these features was an area of intense burning which itself was bounded on two sides by areas of clean brown clay showing no signs of burning whatever (Fig. 12, Z-Z-Z). The line of demarcation between the clean clay and the burnt stone was clear and seems to represent the foundations of walls, partitions or divisions which had disappeared after the occupation of the building.

Layer 6 consisted of grey/brown clay about 2 ft. thick.

Layers 7 and 8. Layer 8, 5 ft. deep, was a black, evil-smelling soil with a large organic content similar to Layer 8 of Trench 2 (1957). Despite its intense black colour and watery nature in the centre of the trench at this depth, it was possible to detect slight differences in colour due to deposition at different times. The deposits ran obliquely across the section and implied gradual accumulation of rubbish. While the perishable contents had rotted away, some artefacts had survived; these were quantities of pottery² and animal bones,³ sea shells, discarded, worn-out shoes, boots and leather fragments⁴ including sheaths, a few metal objects,⁵ a shallow wooden bowl (Pl. VII) and a fragment of cloth.⁶ The pottery ranged from the twelfth to the fourteenth century.⁷

Towards the bottom of Layer 8 (Fig. 10) were parts of the skeletons of three horses (Pl. VIII).⁸ One was nearly complete; two were fragmentary though more may have existed in unexcavated areas beyond the trench. These skeletons are of particular interest in being dateable to the eleventh–twelfth centuries.

Penetrating into and, in a few instances, through Layer 8 were timber piles. These varied in length from 4 ft. to 6 ft.: all had sharpened points and had been driven into the ground. They were arranged in clumps of eight or more. Five of these clumps were within Trench 3A (Figs. 10 and 14); none were found in Trench 3B. Some piles in one clump had been driven through the skeleton of one of the horses (Pl. VIII). Nearly all the piles consisted of re-used oak building-timbers and displayed tenons, mortises and peg-holes (in one instance the peg itself was still in position). Five typical specimens are

¹ On Fig. 12 these are described as 'kilns'.

² Examined by Mrs. J. Le Patourel and reported on in Appendix IX.

³ Report published – *Ryder 1970*.

By far the biggest proportion of these animal bones consisted of horn cores – 240 of which were counted. Most, though not all, of these were found at the Hornpot Lane end of Trench 3A and in Trench 3B and, as will be pointed out later, were thickly concentrated at one place. These are unlikely to represent domestic rubbish and, in view of the associations that this locality had with a horners' manufactory, it is much more likely that these too have to do with horners and their craft.

⁴ Reported in Appendix VII.

⁵ Described in Appendix V.

⁶ Reported on in *Ryder 1970*.

⁷ It is worth noting that the first sherds of Saxo-Norman pottery found in this trench were encountered in the bottom 6 ins. of Layer 8).

⁸ Report published, *Ryder 1970*.



PLATE VIII.
Trench 3, Layer 8. Wooden
piles piercing skeletons
of horses.

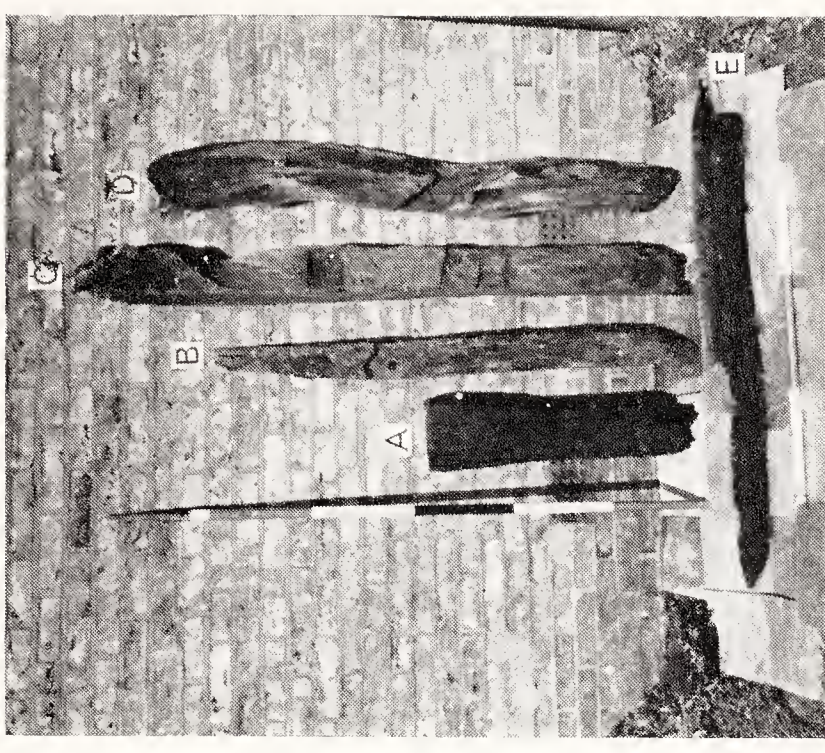


PLATE IX.
Trench 3, Layers 7 and 8
Medieval timbers:
verticals – piles;
horizontal – groundsel.



PLATE X.
Trench 3, Layer 7.
Groundsels showing grooves
and, in centre, hole
for upright post.

shown on Pl. IX, the tallest (c) was a wall plate and had on it a carpenter's mark (Fig. 15A).¹

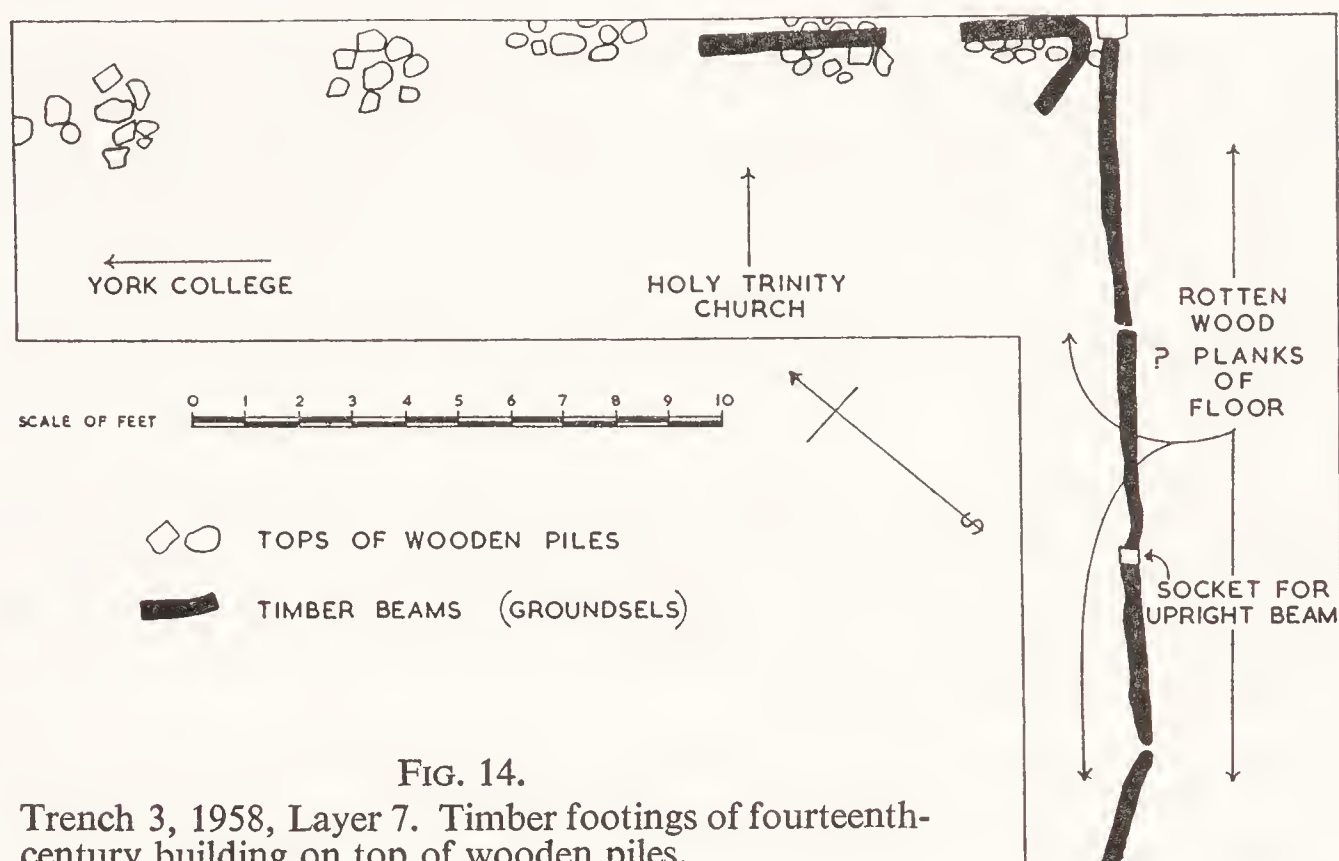


FIG. 14.

Trench 3, 1958, Layer 7. Timber footings of fourteenth-century building on top of wooden piles.



FIG. 15. Trench 3, 1958. Carpenter's marks ($\frac{1}{2}$).

On the assumptions that the building from which these timbers came had a life of about 100 years and that it had been pulled down not long before its timbers' re-use as piles the source-structure would date to before the middle of the thirteenth century.

The demarcation line (Layer 7 on Fig. 10) between Layers 6 and 8 was clear and, except for 2 ft. in the centre where it was cut into by a shallow pit (Pit IV), extended for the length of the trench. None of the tops of the piles reached above Layer 7, and most ended a few inches below it. In three places (noted on the section as 'timber ?planks' and 'timber ?groundsel') pieces of timber were found lying horizontally above these piles as if forming part of the supporting framework of a building. The upright Z on the section (Fig. 10) 3 ft. long and about 9 ins. square, apparently the corner of part of a structure, was associated with groundsels at right angles to each other, which converged on it. The relationship of these groundsels to the upright and to the piles beneath them is best understood by reference to Fig. 14. The groundsel in Trench 3B was in three parts (two of them are shown *in situ* on Pl. X, while one of them is shown after removal from the ground on Pl. VIII); all three had central grooves about an inch deep running the entire length of their upper faces, while one had a socket hole about 3 ins. square to take an upright post. To this post and into the grooves lath and plaster walls were doubtless

¹ Lying on the site – unconnected with the excavation – was another large beam with carpenter's mark. It was drawn and is shown on Fig. 15B. This beam had formed part of Talbot House or of the Fox Inn alongside it and presumably dated to c. 1460.

fitted. As there were remnants of thin rotted planks – presumably of wooden floors – on *both* sides of this groundsel in Trench 3B, this wall was probably internal rather than external.

The clump of piles (Fig. 10) alongside, and clearly associated with, the upright at Z, was different from those elsewhere in Trench 3A. The lower part of the clump consisted of ten piles, driven in close together, whose tops were 27 ins. below Layer 7; all were at least 4 ft. long and penetrated over a foot below Layer 8, through Layer 9, and into Layer 10. Driven in above these so as to wedge between the tops of the lower piles were 3 or 4 others about 2½ ft. long. Heaped up between these and on top of the lower piles were cobbles and pieces of timber laid horizontally and criss-crossed, all being packed with clay containing dozens of horns of oxen and goats. The latter were reminiscent – although far fewer in number – of the horns found in the retting pit in Trench 2 (1957). Finally, the upper piles were surmounted by carefully-laid cobbles, on which were placed two layers of short timber beams, roughly 4 ins. by 3 ins. in section, the uppermost of which comprised part of a groundsel. Particular care seemed to have been taken to strengthen the area alongside upright Z (itself resting on a substantial plank¹ which must have been put there deliberately). Such strengthening would be logical if Z was the stump of a corner upright of a timber building.

The piles were below the groundsel in Trench 3A but not below the one in Trench 3B; probably the former supported the external wall of a building, while the latter almost certainly supported only an internal partition.

Layer 9, about a foot thick, extended over all of Trenches 3A and 3B except where it was cut into by Pit V at the College end of 3A. It consisted of black soil similar to Layer 8 immediately above it but had a brown manure-like content. There was a somewhat similar stratum in Trench 2 (see p. 74). Although shown in section as a separate ‘layer’ it probably represents no more than the bottom of the eleventh/twelfth–fourteenth century rubbish. The only pottery it contained was Saxo-Norman and Roman.

Other finds from this layer were two human skulls (Appendix I). These had been disturbed, no other skeletal remains being found near them. They presumably came from the graveyard associated with the nearby Holy Trinity Church, Goodramgate.

Layer 10. This layer (Fig. 10), varied in depth from 18 ins. to little more than an inch and consisted of black soil containing many fragments of mortar but little of the organic rubbish which characterised Layer 8. The only artefacts were ten sherds of Roman pottery (none illustrated).

Layer 11 represented the fifth structure encountered on the site. It was at about the same depth and horizon and of a similar appearance to the ‘raft’ or foundations of Saxo-Norman buildings found in Trenches 1 (pp. 68-9) and 2 (pp. 76-7). In Trench 3 the feature was cut into by two pits – one very large one (Pit V) at the College end of the trench and a smaller one nearer the centre (Pit VI). Pit V contained 28 Romano-British sherds (none illustrated) and Pit VI contained a few pieces of birch wickerwork, perhaps the lining of a rubbish pit. (A similar feature was found in Trench 2 at about the same depth, see p. 75f. where other York examples are quoted.)

Except where cut into by these pits this structure occurred in the whole length of Trench 3A except in the 2 ft. nearest to Hornpot Lane. The ‘ledge’ described below, one of the most significant features of this structure, was roughly in the centre of Trench 3A and is shown *projected* on section G – H, Fig. 9. The employment of re-used Roman stones was comparable with the structures in Trenches 1 and 2. There were four parts of this feature (Fig. 8A.) The lowest was a 9 ins. layer of re-used stones laid in no particular order and surmounted by a layer, 3 ins. to 4 ins. thick, of carefully laid stones set close together and inclined at a slight angle. On top of these was a 3 ins. to 4 ins. layer of compacted grey clay, into the surface of which was puddled a very rough floor

¹ The depth at which this plank was found, the depth of the top of the lower piles in relation to the ‘surface’ (Layer 7) when they were put down and the build-up nature of the supporting ‘clump’ at this point all imply that the upper piles at least, and the materials between them, were inserted in a trench dug to take them.

of stones similar to, but flatter than, those used elsewhere in the structure. This topmost layer was bounded by carefully arranged and perhaps specially selected Roman ashlar about 4 ins. thick. These were set back some 10 ins. from the edge of the layer on which they rested, leaving a sill running the length of the raft-like structure, the latter apparently intended to support a groundsel. Between the edge of the sill and the Holy Trinity Church side of Trench 3A, and 3 ins. lower than the top of the sill, was a rough layer of flattish stones lying on the black soil (Fig. 8A); perhaps this was a paved surface outside the building assumed to have been constructed on the raft.

The raft ended 2 ft. from the Hornpot Lane end of the trench. Here, but 18 ins. deeper, was the fragment of a badly robbed Roman wall, 2 ft. wide, running at right angles to the long axis of the raft as exposed. Fig. 16 (an enlarged and annotated portion of Fig. 9) illustrates the complexities of this area.

Of the purely Roman work only the foundations (A) and the offset course (B-B) with its concrete core (C) survived. Above this was a 4 ins. to 5 ins. layer (D) of loose Roman mortar and rubble. On top of this was a 2 ins. layer of brown clay (E) surmounted by what looked like the lowest course of another wall consisting of two parallel lines of carefully laid re-used Roman ashlar (F-F) with a core of loose, re-used Roman rubble (G) between them. The ashlar (F-F) were neither mortared together nor to the interior rubble (G) and the wall (if wall it was) was hardly Roman in character. Further, on both sides of this 'wall', there was visible in section a cutting (penetrating the fourth century Roman floor) of a trench (H-H), perhaps a post-Roman robber trench dug to remove stones and concrete rubble from the Roman wall (B-C-B). The mass of stones of the lowest part of the 'raft' of the Anglo-Norman building described above (J of Fig. 16) did not exist beyond the line of this wall suggesting that either D, E, F, G forms part of the 'raft' of the Anglo-Norman building (constituting its limit in this direction) or that they are part of the wall of a post-Roman building earlier than the Anglo-Norman raft.¹

No artefacts were found in any of the layers A-J.

III THE ROMAN LEVELS

TRENCH 1 (Fig. 3)

*Layer 15*² was brownish/black soil, 6 ins. thick, containing occupation débris, pottery, a jet ring, clinker and coal. (See Appendix II.) All the identifiable finds were Roman. The pottery, eighteen sherds in all, was of second/third century date: none illustrated.

Layer 16 was another layer, presumably Roman, of concrete 2 ins. to 3 ins. thick: at the eastern (Hornpot Lane) end of the area excavated it was found to be sloping away sharply.

Layer 17 was grey clayey soil 8 ins. to 10 ins. thick containing a few cobbles and stones.³

Layer 18, 6 ins. to 8 ins. thick, consisted of heavily-burnt débris containing charred wood and wood ash. Fifteen sherds of Roman pottery were found in it, seven of which came from the same jar and lid of rusticated ware (Fig. 32, no. 5): another sherd was from a Samian cup (Form 27), not illustrated. The remainder were sherds of grey and red ware: all were of Flavian date.

Layer 19, 15 ft. 7 ins. below the modern ground surface the undisturbed subsoil, of stiff, grey, boulder clay, was encountered.

¹ Recent discoveries of ?Anglian post-Roman walling under York Minster strengthens this possibility.

² The numbering of layers in all 3 trenches continues from the Medieval levels.

³ Layers 15-17 (Fig. 3) in this trench are in the same horizons as Layers 16-18 (Figs. 5 and 6) in Trench 2 and Layers 12-14 in Trench 3 (Fig. 9) and there can be little doubt that they are to be linked together. There is, however, this important difference - the concrete layers of Trench 1 would imply *internal* floors whereas the mortar spread/rubble 'floors' of Trenches 2 and 3 (probably originally covered by flags or stone slabs (see p. 70 and above) imply *external* areas).

TRENCH 2 (Figs. 5 and 6)

(i) *Petergate end of the trench* (Pls. XI–XII).

At a depth of 11 ft. 6 ins. below the modern surface at the extreme southern end of the trench, a Roman wall was exposed and found to be standing six courses high on the College side and seven on the other side. Only a 6 ft. length – the width of the trench – was exposed (Pl. XI). The lowest course, resting on foundations referred to later, consisted of ashlar 5½ ins. thick and was offset an inch beyond the courses above; the latter each measured 3½ ins. to 4 ins. in depth. The ashlar, of magnesian limestone, were 5 ins. to 8 ins. long and those visible on the top of the wall were bonded 6 ins. to 8 ins. into the concrete core behind, most being slightly tapered. The concrete core had many cobbles, pebbles and tile and brick fragments puddled into it. The top of the wall as exposed – both core and ashlar – had adhering to it a thin layer of gravel which did not appear to be Roman nor to be part of the original structure. Taken with a similar find in Trench 1 (see p. 69) it is just possible that the top of the wall had been incorporated into a post-Roman road, the surviving gravel representing part of its surface.

Only one side of the Roman wall was within the trench, thus its width could not be ascertained; however, the width exposed was 26 ins. and, with another 6 ins. to 8 ins. for a stone face on the other side, its *minimum* thickness would be 2 ft. 8 ins. to 2 ft. 10 ins. The character of the masonry and particularly the wide mortar joints indicated fourth century (? Constantian) work.

The foundation (Pl. XII) consisting of brown clay and cobbles (many of the latter being as much as 10 ins. to 12 ins. in diameter), was 30 ins. deep and sloped slightly away from the wall. Thus the foundation projected 8 ins. beyond the wall at the top and 13 ins. at its deepest. Alongside the foundation and parallel to it was a cavity, almost certainly for a drain, 18 ins. deep and 16 ins. to 21 ins. wide. It was edged on the wall side by the cobbles comprising part of the foundations – three larger ones one on top of the other – while the other side was formed by two cobbles surmounted by a large limestone block. Beyond this was a mass of cobbles 2 ft. wide. The base of the drain consisted of carefully laid cobbles, underneath which was a mass of cobbles 14 ins. deep. In the drain itself were a few fragments of micaceous sandstone which may indicate the character of the original bottoming, covering and lining. This drain, with the weathering of some of the facing stones of the wall itself, showed that the wall face was external and not internal.

The cobble/clay foundation of the wall and the cobbles comprising the sides and base of the drain were part of one structure, and had been inserted into a trench dug through earlier features – the mortar spread of Layer 18 and the gravelly soil (Layer 19) below it. It seemed that a new ‘floor’ level had then been created by dumping the 12 ins. to 15 ins. layer (17) of grey clayey soil and levelling this off with mortar (Layer 16B) or limestone rubble (Layer 16C). Thus a new floor level was created which was brought level with the bottom of the lowest course of the wall, and raised above the footings of an earlier demolished (Roman) wall recorded at the other end of the trench and discussed below. If this levelled surface had been surmounted by slabs of stone, *litus stratus* (again possibly of micaceous sandstone as small fragments of these were found lying on it) this would have supplied a satisfactory external ‘courtyard’ surface and a cover to the drain itself.

The brown soil of Layer 15 lying above this fourth-century floor contained over a hundred sherds of Roman pottery ranging from the second to early fourth century. These included two sherds of *terra sigillata* (see Appendix VIII, nos. 10 and 11); 13 sherds of plain Samian representing forms 17, 31, 33 and 37; 13 sherds of colour-coated (castor) ware; 19 sherds of miscellaneous grey ware and 6 sherds of buff/cream legionary ware. In this same layer were two fragments of roofing tiles (*tegulae*) one of which had on it the stamp LEG VI VIC [P F] (illustrated Fig. 27, no. 18).¹

The only artefact found in Layer 16B–C, the mortar/rubble spread, was a spindle-whorl (Fig. 27, no. 17) made from the bottom of a Roman pot.

¹ Already reported in *J.R.S.* xlviii (1958), p. 153, no. 22.



PLATE XI.
Trench 2. Late Roman wall and foundations.



PLATE XII.
Trench 2. Details of late Roman wall foundations.



PLATE XIII.
Trench 2. Foundations of ?second century Roman wall.



PLATE XIV.
Trench 3, Layer 14 (cf. Fig. 18). ?Fourth century Roman walls.

Layer 17, the loose mortar, rubble and clay filling below the floor (Layer 16) contained 14 sherds of buff/cream legionary ware, 7 of coarse grey ware, one small fragment of a *tegula* and one small fragment of glass.

(ii) *Holy Trinity Church end of trench* (Pl. XIII)

Only part of the foundation and a single ashlar of the lowest course of this Roman wall were found. The former consisted of sizeable limestone rubble and, on the evidence of the 6 ins. where it penetrated the natural clay had been inserted into a straight-sided trench. On the south side of the trench the foundation had survived intact and was 2 ft. deep: this was proved by the presence of the one ashlar (noted above) of the footing course of the wall: the latter was clearly *in situ* as it was mortared to the top of the foundation which projected 4 ins. beyond the outer face of the ashlar. On the north side of the trench the foundation had been robbed almost down to the subsoil beneath: Layer 14 (Pit no. 2 of Fig. 5), represents the robber trench. The width of the foundation was unknown as most of the feature was outside the trench excavated.

This predated the fourth-century wall at the other end of the trench. This was certain because the mortar/rubble spread (Layer 16B-C), associated with the floor of the later wall, sealed the foundations of this earlier one, which had been demolished to make way for it. The 'floor' (see below) associated with the earlier wall was represented by the mortar spread of Layer 18, which was similar in appearance to that of Layer 16B. In section (Fig. 6) Layer 18 was level with the top of the footings on the south side of the trench, where they still survived intact. On Layer 18 were a few small fragments of micaceous sandstone, probably all that remained of the large slabs of some flagged floor comparable with that outside the fourth-century building. A floor in such a horizon would have been level with the top of the foundations and with the bottom of the lowest course of the wall itself. There was nothing to indicate whether the wall face as uncovered was likely to be internal or external.

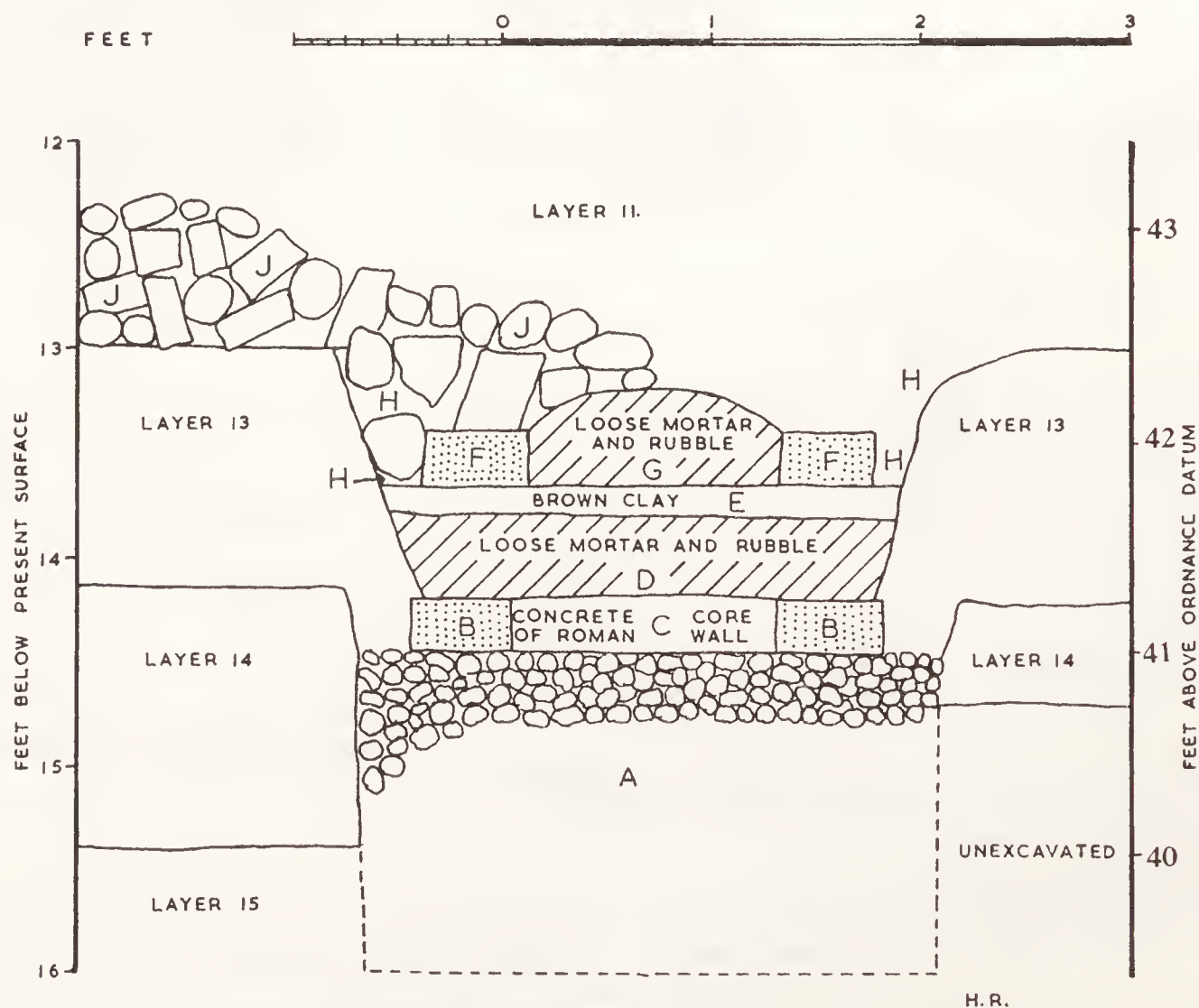


FIG. 16. Trench 3, 1958, Layers 13-16. Detail of Roman wall.

In Layer 19 were 22 fragments of wall plaster, all coloured a dirty buff, but one having a red band across the background, the other a grey one. There were 12 sherds of mis-

cellaneous grey ware, 20 of cream/buff 'legionary' ware, one of rusticated ware, 5 of Samian, representing forms 33 and 37 (see Appendix VIII, no. 13) and one sherd of a mortarium (see Appendix VIII, no. 18). The legionary ware dates to the first century,¹ so the floor (Layer 18) is probably Trajanic.

Near to the footings of this earlier wall and visible in the grey clay of the subsoil were two black postholes (noted on Pl. XIII by the pieces of white cardboard) possibly belonging to a wooden building linked with one of the Flavian phases of the fortress. They measured roughly 3 ins. by 2 ins.: their depth was at least 6 ins., though they may have been deeper, as the waterlogged state of the trench at this depth made accurate measurement impossible.

TRENCH 3 (Fig. 10)

The latest Roman deposit in Trenches 3A and 3B was *Layer 13*. This consisted of 12 ins. of brown clay, rubble and mortar² on which were numerous fragments of micaceous sandstone slabs. Two of these, each measuring approximately a foot square, were apparently still *in situ*. There was insufficient evidence to establish whether they were internal or external to a building.

Layer 14 was 12 ins. of compacted grey clay, the filling over an (earlier) Roman floor on the site (see below). Associated with this was certainly one, if not two, different types of wall foundations (only for a very short length did part of the wall itself survive, so that comparison between these was impossible).

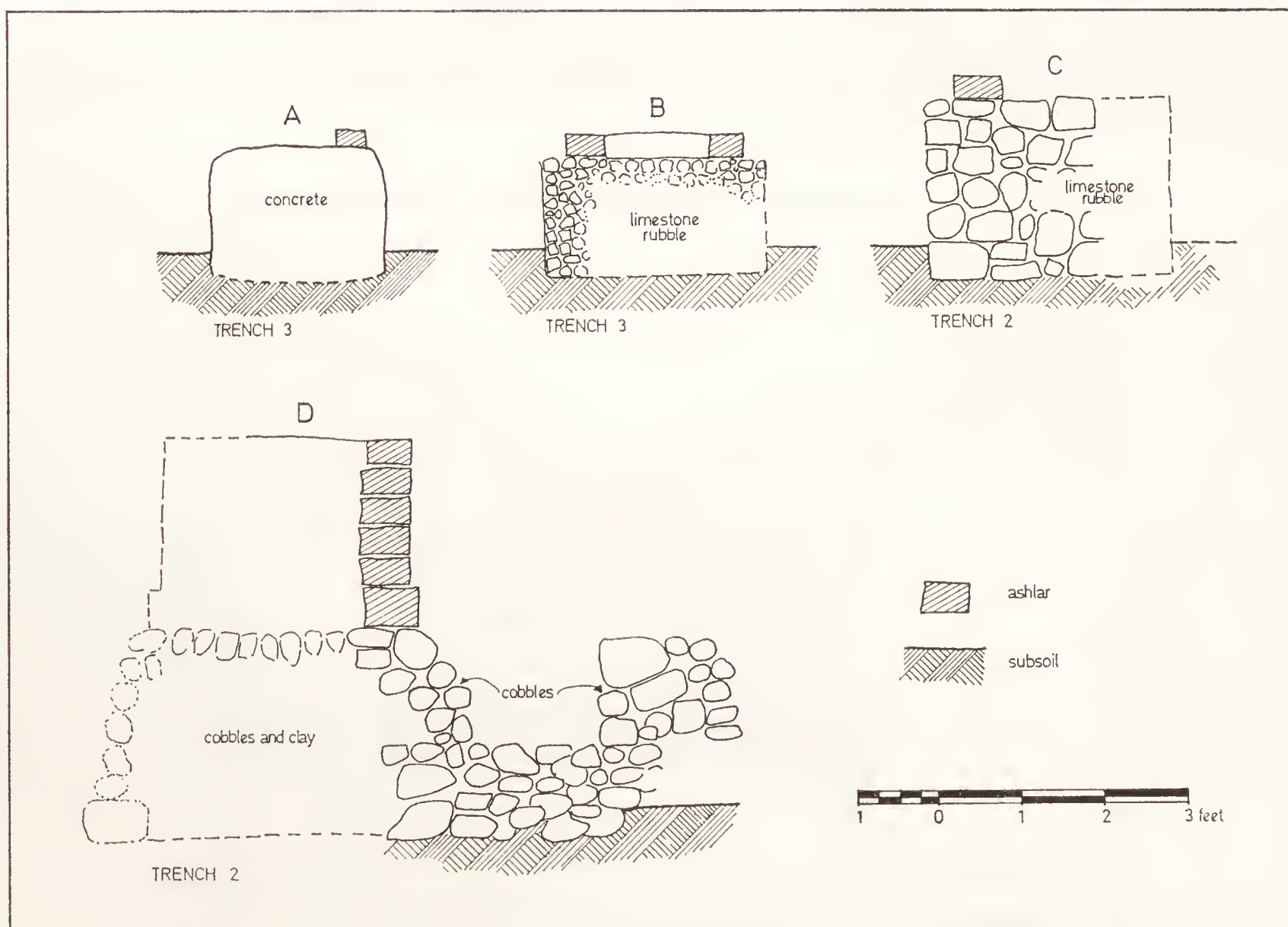


FIG. 17. Trenches 2 and 3. Foundations of Roman walls.

¹ Since this report was written, excavations some 60 yards outside the northeast corner of the fortress have revealed what must be legionary kilns producing pottery similar to that found in this Petergate excavation: the evidence points to them being of first century date.

² The mortar and rubble was what one would expect as the debris remaining from demolished Roman masonry after the ashlar and other re-usable stones had been removed.

Wall No. 1 (see Figs. 10, 17A and 18)

Extending across Trench 3A was a 6 ft. length of the concrete foundation of a pre-fourth century wall. (It was sealed beneath Layer 14, the filling which supported the fourth-century floor.) The concrete was hard, solid and very well made; into it had been puddled the usual pieces of limestone and cobbles of varying sizes. At its widest the concrete was 26 ins; it was nearly 2 ft. deep, penetrating 3 ins. to 4 ins. into the clay of the subsoil. Three of the ashlar of the lowest (?offset) course of the wall itself were still *in situ* and from these it was established that it could not have been wider than 10 ins. The wall had clearly been dismantled either when the later fourth century floor was put down over it or earlier.

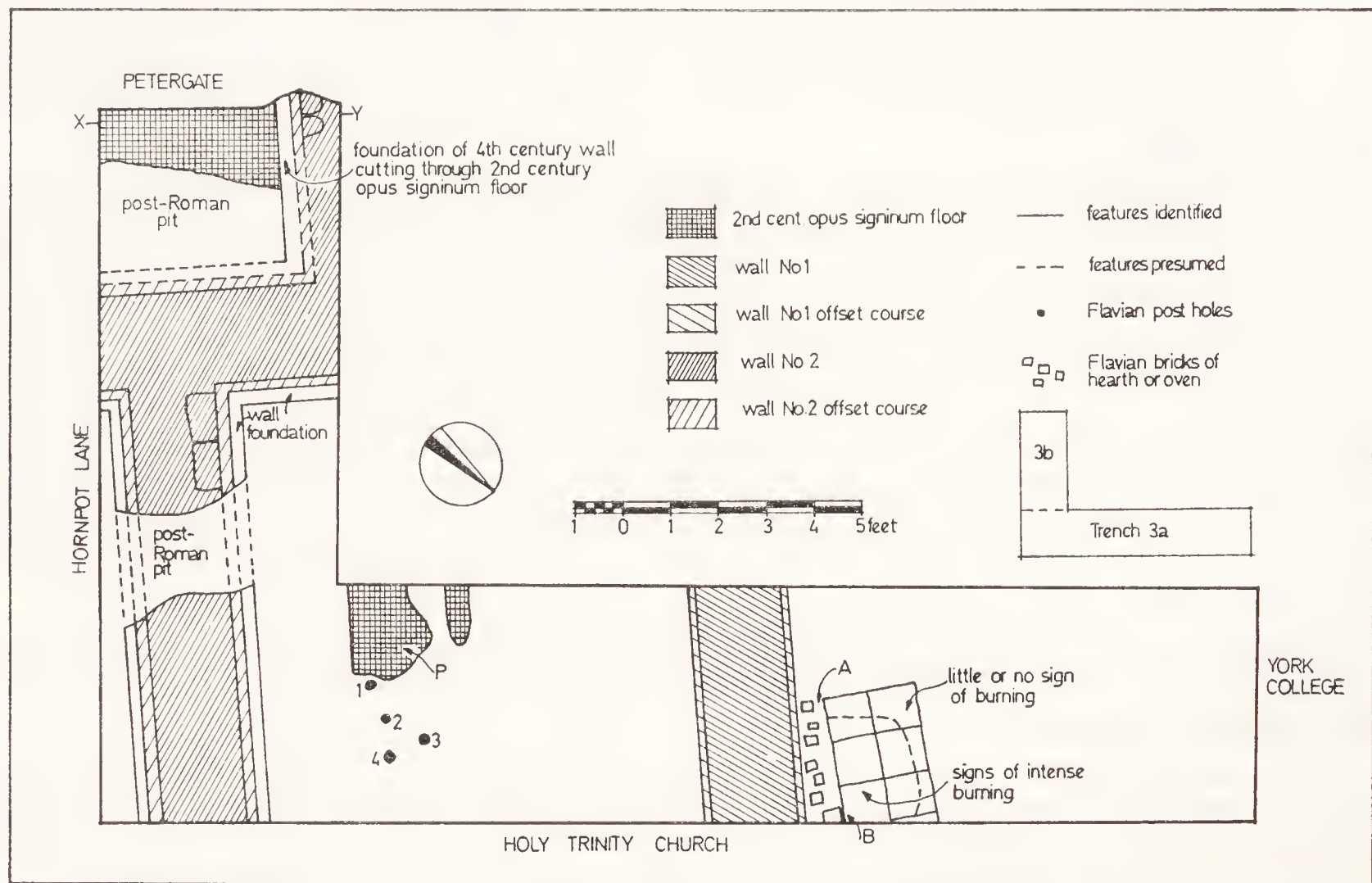


FIG. 18. Trench 3, 1958, Layer 14. Plan of Roman features.

The floor associated with this wall had rested on Layer 14. In one area of this (P on Fig. 18) there were two small patches of concrete containing a few small specks of coloured brick or pottery in their very abraded surfaces. In view of the discovery of part of a well preserved *opus signinum* floor in Trench 3B (Fig. 18) these possibly represented badly damaged fragments of a similar and adjoining one.

In Layer 13 there were 27 small sherds of pottery including two of colour-coated (castor) ware; part of a hypocaust tile with a 2 ins. layer of *opus signinum* mortared to it and four fragments of wall plaster, variously coloured green, grey and red.

In Layer 14 were fifteen sherds of pottery and three fragments of wall plaster. The latter showed the same colours as the fragments in Layer 13 but, whereas the plaster in Layer 13 was 1½ ins. thick, in Layer 14 it was no thicker than an inch. The pottery consisted of seven sherds of plain Samian (Dr. 18 and 27), six belonging to the same jar of legionary ware (Fig. 27, no. 16) and one of a small vase in light cream ware; the group was dated late first to early second century.

Wall No. 2 (Figs. 6, 17D, 18 and Pl. XIV)

Running the entire length of Trench 3A (except where destroyed by post-Roman pits) were the foundations and lowest courses of another Roman wall (plan: Fig. 18) quite different in construction to No.1 described above. The foundations were of limestone

rubble 15 ins. deep and 33 ins. wide inserted into a straight-sided foundation trench cut 6 ins. to 8 ins. into the subsoil beneath. On top of this the lowest offset course (25 ins. wide) of the wall survived throughout. In some parts a second course still remained above this while at the extreme Petergate end of Trench 3B it stood six courses above the footings. The character of this masonry was unlike that of the latest ?fourth-century Roman wall at the Petergate end of Trench 2 (Figs. 6 and 17D). It may, however, have survived and been incorporated into the fourth-century rebuild. The core between the ashlar faces was concrete containing limestone fragments. This wall was later than wall No. 1, though the level of the floor(s) associated with it were virtually the same as those with the earlier (No. 1) wall, i.e., they rested on Layer 14.

At the Petergate end of Trench 3B the foundation trench of wall No. 2 had cut into the floor of *opus signinum* referred to above (Fig. 18). The floor to be associated with wall No. 2 had rested on the 2 ins. layer of gravel and mortar overlying this *opus signinum* floor.¹ The *opus signinum* floor in Trench 3B had been cut into by a post-Roman pit at least 3 ft. deep.²

Base of oven or hearth. Flavian. Alongside, and on the College side of the second-century wall footing (Wall No. 1) found in Trench 3A, was a portion apparently of an oven base or hearth: it was lying on a 4 ins. layer of grey compacted clay (Fig. 9, Layer 15) which in turn rested on the subsoil of similar coloured clay. In Trench 3A (Fig. 18) it consisted of six complete red Roman tiles (each $11\frac{1}{2}$ ins. square and $2\frac{1}{2}$ ins. thick) and part of another one, placed side by side. Nearby, damaged when cut by the foundation trench for Wall No. 1, were fragments of others. The structure of which these bricks were a part had originally been larger, for it continued under the side of the trench and the wall footings (see above) cut into it. The tiles (Fig. 18) were not laid on the same alignment as the wall: at the trench side the gap between the edge of the footing and the side of the nearest complete brick (B on Fig. 18) was 10 ins.; alongside the last brick of the structure (A on Fig. 18) it was only 6 ins.

The surface of the tiles had been burned, intensely on the parts nearest the wall footings but hardly at all on the perimeter (Fig. 18). The heat had fractured central tiles more than those at the edge.

The tiles, when removed, broke up and were not preserved. While no artefacts were found beneath to date them, their relationship to the second-century wall footings alongside and to the virgin clay only 4 ins. below them, suggests that they were Flavian.

Four *Postholes* were found (Fig. 18). Nos. 1 and 2 were approximately $1\frac{1}{2}$ ins. in diameter, Nos. 3 and 4 approximately 2 ins. Nos. 1 and 2 were void to a depth of $4\frac{1}{2}$ ins.; No. 3, 6 ins. and No. 4, 10 ins. Posthole No. 1 was sealed by one of the portions of second century *opus signinum* found *in situ* in Trench 3A (P on Fig. 18). The postholes are therefore presumably also Flavian.

CONCLUSIONS

It will be useful to summarise the information from the Roman levels in these three 1957–8 trenches. This is the first excavation³ undertaken in the central part of the fortress and, due to the restrictions of a small area and problems of depth, shuttering and flooding, it has presented problems which will only be resolved by further excavation. The phases encountered are dealt with chronologically, starting with the earliest.

1. Timber-built Flavian structure. Post-holes in Trenches 2 and 3A.

Brick oven-base or hearth, Trench 3A.

Layer 18, Trench 1, containing burnt material including datable Flavian pottery.

¹ The relative O.D. levels between this latter floor and the patches of *opus signinum* in Trench 3A are the same to within an inch.

² This could not be drained enough for satisfactory measurements to be taken.

³ Since this was written excavations in York Minster have sited the exact position of the *principia* (Fig. 1).

2. Pre-fourth-century stone structures, presumably second century.

(a) Concrete footings of Wall No. 1 of Trench 3A (Fig. 18). This could only carry a 20 ins. wide wall, which was deliberately demolished in Roman times; certainly earlier than (2B) and (3) below. Sealed under fourth-century floor (Fig. 17A).

The floor associated with this wall must have lain on Layer 14 (Trench 3A, Fig. 9) and was certainly *opus signinum* in one room (Fig. 18) and probably in another (Fig. 18).

(b) Foundations of Wall No. 2 in Trench 3 (Figs. 17B and 18). It is assumed that these belong to the same structural phase of the fortress, as they occur at the same O.D. level and have certain features in common. However, while both are composed of limestone rubble, the stones used in Trench 2 (Fig. 17C) are much larger than those in Trench 3 (Fig. 17B) and they might represent different phases. In Trench 3 this 2(b) phase is clearly later than 2(a).

In Trench 2 the wall on top of the footings had been removed in Roman times and was sealed beneath the fourth-century floor (Layer 16 of Fig. 6). In Trench 3 it *may* have suffered the same treatment *in parts*. This could not be proved as the stratification was destroyed by post-Roman (?Saxo-Norman) robber trenches (see p. 78 and especially Fig. 5), though in one part at least the wall had perhaps survived and been incorporated into the fourth-century structure (see p. 87).

The floors associated with these walls rested on Layer 17 (Fig. 3, Trench 1), Layer 19 (Fig. 6, Trench 2) and Layer 14 (Fig. 9, Trench 3).

3. Fourth-century wall. Trench 2. Wall at least 33 ins. wide built on footings nearly 3 ft. deep of cobbles and clay, penetrating 6 ins. to 8 ins. into the subsoil (Fig. 17D). As in 2B (above) part of earlier (?second century) walls may have been incorporated into this phase in Trench 3.

The floors associated with this phase rested on Layer 15 (Trench 1, Fig. 3), Layer 17 (Trench 2, Fig. 5) and Layer 14 (Trench 3, Fig. 9). In the first the floor appeared to be of *opus signinum* and in the last two of micaceous sandstone slabs laid on concrete.¹

This excavation has, therefore, revealed four Roman structural phases:—

1. Flavian. Timber.
2. } Pre-fourth century; presumably second century; both stone.
3. }
4. Fourth century; stone.

It may be that we have evidence for the four traditional structural phases of the fortress in York – Flavian; Trajanic/Hadrianic; Severan; Constantian. It seems reasonable to associate (2) above with the Trajanic/Hadrianic phase and (4) with the Constantian. However, on the evidence of such a small area it would be dangerous to accept these as proven or to link (3) unreservedly with the Severan. In the 300 years that the fortress was occupied, there would be many local modifications to individual buildings quite divorced from major reconstructions involving the fortress as a whole. While, therefore, the evidence from this excavation does nothing to contradict the traditional view and may, in fact, give some support to it, work covering far larger areas than these must be done before anything like finality is reached.

APPENDIX I

HUMAN SKULLS

By Professor ROGER WARWICK

SKULL NO. 1. The mandible and entire face of this skull are missing, i.e., it is merely a calvaria. It is strongly masculine and comes from a man well advanced into adult years. Only the sutures can give any indication of his age at death. Fusion is advanced in the sagittal, coronal, and lambdoid sutures, although their surface marking is still everywhere apparent. This suggests an age of 35 to 45 years. Muscular impressions are well-marked. There is no osseous evidence of disease. The skull is dolichocephalic and has the shape characteristic of most of those found in York in association with the Romano-British horizons.

¹ It is suggested on p. 86 that this might imply that Trench 1 was inside a Roman building of some sort and Trenches 2 and 3 outside it.

SKULL No. 2. This consists of a calvarium, the cranial base being defective, and part of the upper facial skeleton. It is male also and of a similar age, though perhaps a little younger than Skull No. 1, say 30 to 40 years. The teeth are very worn, but none had been lost, nor was any caries or root infection present at the time of death. This in itself indicates comparative youth, for apical infections of teeth and consequent loss of molars is a common finding in Roman-British skulls if over the age of 30. The skull is dolichocephalic and very similar in shape to Skull No. 1. There is no evidence of injury or disease in the bones.

When compared, these two skulls appear to be from the same population and closely resemble those found in the Trentholme Drive Romano-British Cemetery (York).¹ They are more discoloured, presumably due to the high organic content of the soil in which they were found. In coloration they are like the skulls found near Clifford's Tower,² but are better preserved.

APPENDIX II COAL

The three samples of coal found in the excavation were examined by Dr. Butterworth of the Coal Survey, Chester, who reported as follows:—

- (i) Fig. 3, Trench 1, Layer 15 (?Roman or Anglo-Norman, see p. 85). Either from a seam below the (i.e., in the lower part of the Coal Measures) or, if from Yorkshire, from a seam between the Flockton and Better seams in the middle part of the succession.
- (ii) Fig. 5, Trench 2, Layer 3, Hearth No. 1. Fourteenth/fifteenth century, see p. 70. Part of the sample from the Coal Measures and, possibly, part from Lower Carboniferous seams.
- (iii) Fig. 5, Trench 2, Layer 3, Hearth No. 2. Fourteenth/fifteenth century, see pp. 70-3. If from Yorkshire, Harvey in Durham as is most likely, the sample comes from a seam above the Flockton. In south Durham, seams at these horizons are largely concealed beneath the Permian cover.

Mr. A. H. Edwards, Chief Coal Survey officer of the Durham and Northern Divisions of the National Coal Board adds:—

'I am afraid the report is not specific as to localities but there are indications that the coal could have been received from Durham or Yorkshire and some of it as far afield as North Northumberland or Scotland. The lower carboniferous coals referred to could only possibly have come from these last two localities.'

In answer to a further letter Mr. Edwards replied:—

'With regard to your query as to the nearest point to York where coal outcrops, I should say that this is somewhere near Leeds where the Beeston seam outcrops, though I think you should be warned that coal has been worked in the past at several points in the Coxwold-Ampleforth region 15 miles or so north of York, almost on the doorsteps of Byland and Rievaulx Abbeys.'

APPENDIX III ANALYSIS OF CRUCIBLE AND CONTENTS By J. H. WRIGHT

These specimens consisted of pieces of greenish-coloured slag associated with refractory or siliceous material, and some small fragments of metal.

The table given below gives the average analysis of the sample, and if we examine this it will be noticed that nearly 65% is silica, with about 9% alumina. These together could easily have formed the basis of a refractory crucible. Further down in the analysis you will see 11.8% copper and 0.63% tin and there is also 0.56% lead. The metallic portion suggests that the crucible and the hearth were used for the melting of bronze – an alloy of copper and tin. Fragments of charcoal were also found in the sample and this might suggest that the fuel used around the crucible or hearth was charcoal, quite commonly used in the past as a metallurgical fuel.

ANALYSIS					
		%			%
Silica	(Si O ₂)	64.70	Lead	(Pb)	0.56
Ferric Oxide	(Fe ₂ O ₃)	2.86	Copper	(Cu)	11.80
Alumina	(Al ₂ O ₃)	8.84	Tin	(Sn)	0.63
Lime	(Ca O)	0.40	Sulphur	(S)	0.20
Magnesia	(Mg O)	0.50	Carbon	(C)	0.50
Potash Oxide	(Alks as K ₂ O)	1.30	Carbon Dioxide	(CO ₂)	2.00

Fragments of charcoal were also found in the sample.

¹ Leslie P. Wenham, *The Romano-British Cemetery at Trentholme Drive, York*. (Ministry of Public Building and Works Archaeological Report No. 5) H.M.S.O. 1968.

² *Y.A.J.* xxxix (1958), pp. 410-2.

APPENDIX IV
 MEDIEVAL STONE MORTARS
 (Fig. 19)

Fragments of four large stone mortars were found in the two years' excavations. The geological reports indicate that the stone from which the mortars were made originated in the Tadcaster area.

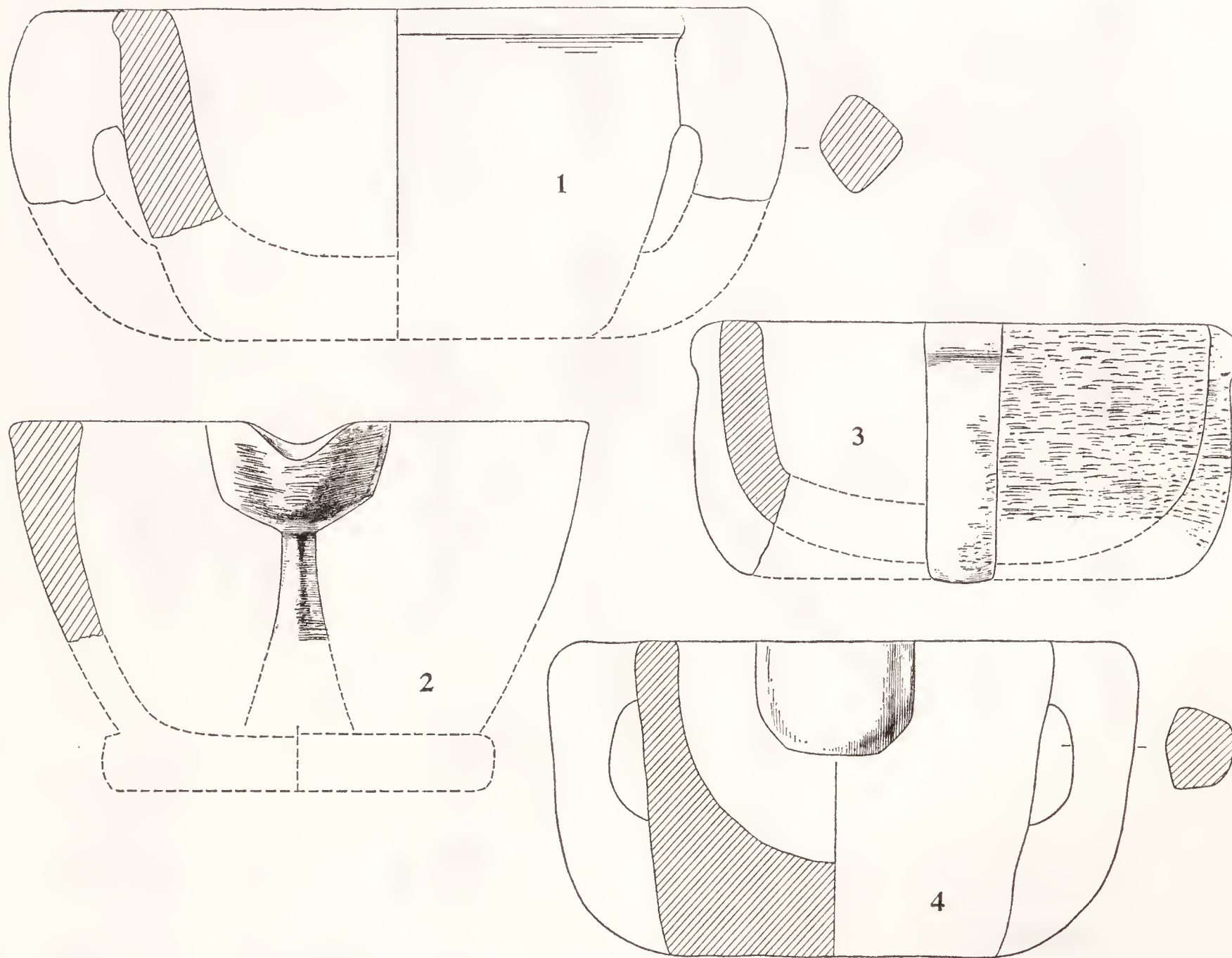


FIG. 19. Medieval stone mortars. No. 2, Trench 1; Nos. 1, 3 and 4, Trench 3 (½).

1 and 3. Trench 3, Layer 4 which dates ?fourteenth century. Both are of finely granular clastic calcareous dolomite. Magnesian limestone.

2. Trench 1, Layer 4. Lying on top of the cobbled floor which was of ?fourteenth-century date.

Fine grained dolomitic limestone. Magnesian limestone. Mr. G. C. Dunning adds this note¹:—

Fragment of stone mortar, 12½ ins. rim diameter. It has a large projecting spout, below which is a fillet in relief widening out downwards. As restored in the drawing, the mortar was probably about 8 ins. high with a heavily moulded base. The Mortar would have two lugs on the rim, placed laterally in relation to the spout. The form of the lugs varies; on some mortars they are simply oblong projections, but sometimes the lug is a long handle, pierced at the back, passing from the rim to the base, or it may be a solid rib. In view of this diversity no attempt has been made to restore the lugs on the Petergate mortar.

Several mortars are known from medieval sites, but the type has not yet been properly studied. Many examples are made of Purbeck marble, but mortars of other stones are from Dover Castle and Rievaulx Abbey.

4. Trench 3, Findspot as nos. 1 and 3.

Finely crystalline dolomite limestone. Magnesian limestone.

¹ For types and discussion see *London Museum Medieval Catalogue* 1940, pp. 190-5.

APPENDIX V
 MEDIEVAL – MISCELLANEOUS FINDS
 (Figs. 20 & 21)

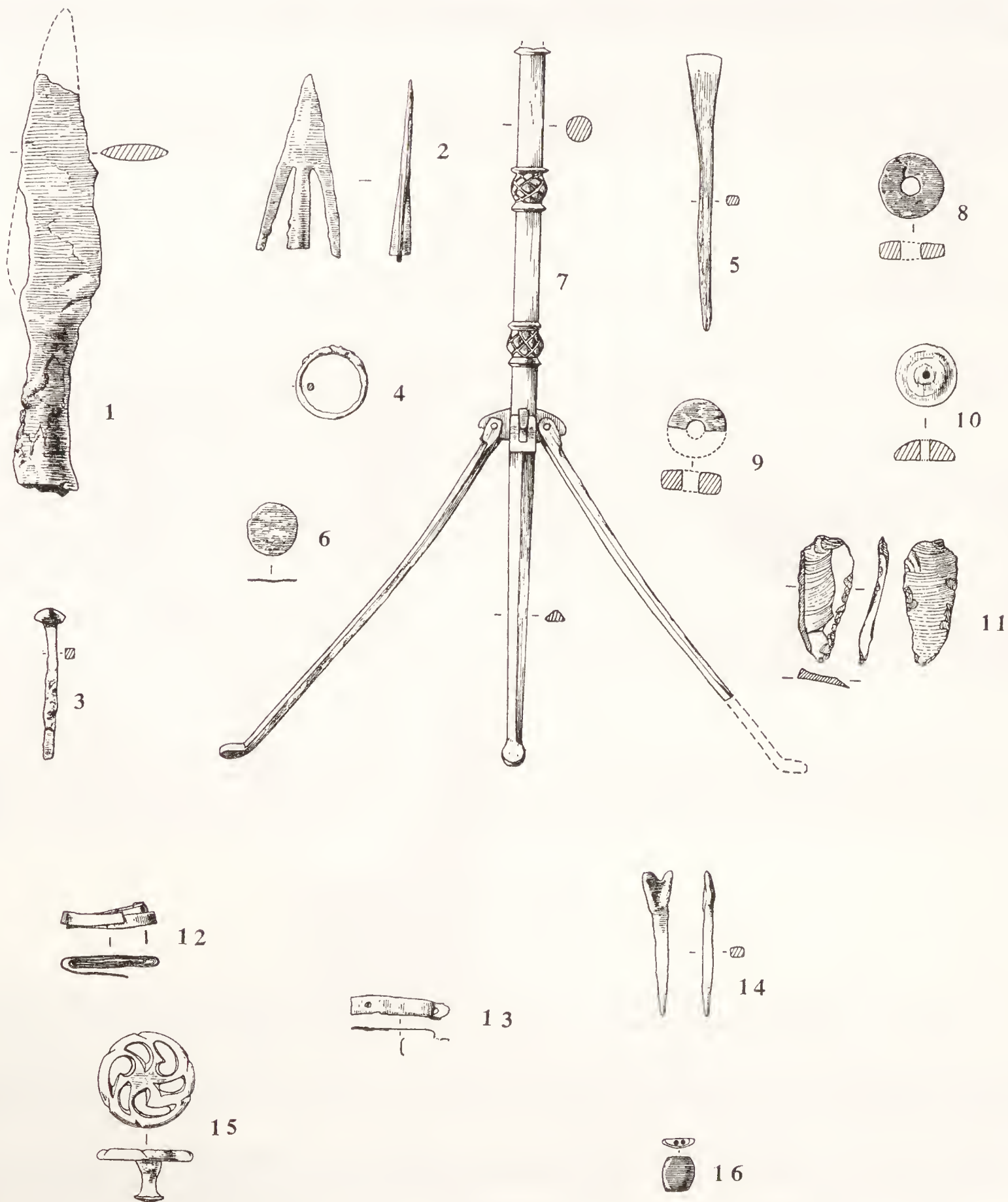
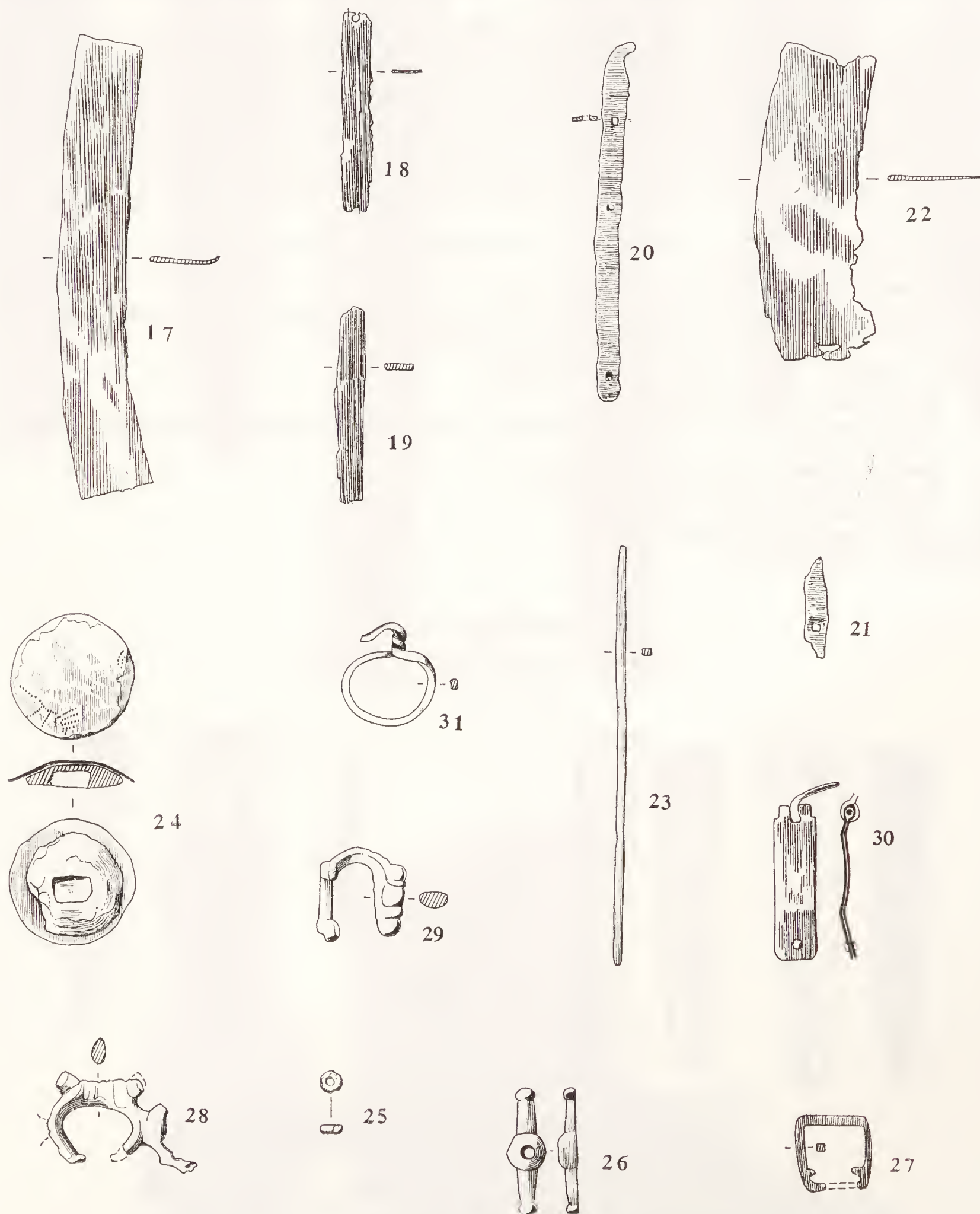


FIG. 20. Medieval objects from Trench 2. Nos. 1–11, Layer 8; Nos. 12–14, Layer 10; Nos. 15 and 16, Layer 13 (all $\frac{1}{4}$ except No. 7, $\frac{1}{2}$).

Trench 2. Layer 8. Dates c. A.D. 1200–1300.

1. Iron, socketed spear-head with leaf-shaped blade, originally about 9 ins. (23 cms.) long. A close parallel is illustrated *London Museum Medieval Catalogue* 1940, Pl. XVI, 5.
2. Iron, barbed and socketed arrow-head. The long barbs suggest it was used for hunting. $3\frac{1}{2}$ ins. (8.7 cms.) long. Cf. *London Museum Medieval Catalogue* 1940, Pl. XV, nos. 29–31.
3. Iron nail, square in section with round head. 2.8 ins. (7.2 cms.) long.
4. Iron ring. External diameter $1\frac{3}{8}$ ins. (3.9 cms.): internal diameter $1\frac{1}{16}$ ins. (2.8 cms.).
5. Lead. Wide end smooth, narrow end tanged. $6\frac{1}{2}$ ins. (13 cms.) long. Although very pliable it looks as if it had been a tool. Was it used with leather?
6. Lead, circular object. Diameter 1 inch (2.4 cms.). Very thin (1 mm.).

7. Bronze three-legged candlestick. Various fragments which can be reconstructed as illustrated. Surviving portion is 5.9 ins. (16.85 cms.) tall. A close parallel from London is illustrated in *London Museum Medieval Catalogue* 1940, Fig. 56, no. 1.
8. Shale disc with hole in the middle. ?Spindle whorl. Diameter $1\frac{1}{8}$ ins. (3.1 cms.).
9. Chalk disc with hole in the middle. Only half remains. ?Spindle whorl. Diameter $1\frac{1}{10}$ ins. (2.8 cms.).
10. Wood, conical disc. Might be large button or pommel of small dagger. Diameter $1\frac{1}{8}$ ins. (2.9 cms.).

FIG. 21. Medieval objects from Trench 3, Layer 8 ($\frac{1}{2}$).

11. Flint scraper. 2.9 ins. long (6.1 cms.). Mr. T. G. Manby of the Doncaster Museum reports on it thus:—

Flint implements of similar form have been found in barrows of Early Bronze Age date on the Yorkshire Wolds. An implement of this form was found with a broad flint scraper and a bone pin

accompanying an inhumation burial in a secondary position in a barrow near Weaverthorpe. (Greenwell, *British Barrows*, p. 197). This barrow (Barrow XLIV) had a primary burial accompanied by a Food Vessel.

A second implement of this form was found in the filling of a wood-lined grave containing an inhumation burial under a barrow near Cowlam (Barrow LIX). (Greenwell, *Brit. Barrows*, p. 225). The Petergate implement differs from the above finds in having a retouch on the edges of the bulbular surface of the flake.

Trench 2. Layer 10 (Horners' pit). Date c. A.D. 1400.

12 and 13. Bronze ribbon.¹ This consisted of a small rolled coil and five other small pieces. When first found all of these were mistaken for gold as they were quite untarnished. Mr. L. Biek of the Inspectorate of Ancient Monuments, Dept. of the Environment, suggests this condition (and the bluish deposit which was present on all the iron objects found in the excavation) was the result of the peculiar air-tight conditions in the waterlogged deposit in which they were found. It is suggested that the ribbon may have been intended as ornamentation on some of the objects (drinking horns, for example) which we might reasonably expect our horner to be manufacturing.

14. Iron. Purpose unknown. It bears a superficial resemblance to the lead object on no. 5 above. $2\frac{7}{10}$ ins. (7 cms.).

Trench 2. Layer 13. Below the foundations of the ?twelfth-century Norman building. These finds will date twelfth century or earlier.

15. Bronze stud. Diameter $\frac{9}{16}$ in. (2.3 cms.).

16. Jet spacer bead. If medieval it could be from a rosary. Beads of this type are found in a Roman context and it might be a Roman survival. $\frac{1}{8}$ in. (0.85 cm.) long.

Trench 3. Layer 8. Dates twelfth–thirteenth century.

17–22. Bronze. Strips of various shapes and sizes.

23. Bronze 'rod' 4.3 ins. (10.9 cms.).

24. Gilt bronze stud. Part of what was probably a pattern of dots is visible on the outside. Diameter $1\frac{1}{4}$ ins. (3.1 cms.).

25. Small glass bead. Diameter $\frac{1}{4}$ in. (0.6 cm.).

26. Bronze ?dagger guard. 1.3 ins. (3.3 cms.).

27. Part of bronze ?buckle. $\frac{3}{4}$ in. (2 cms.).

28 and 29. Fragmentary bronze objects.

30 and 31. Bronze objects.

APPENDIX VI MEDIEVAL LEATHER SHEATHS (Fig. 22 and Pl. XV)



FIG. 22. Medieval leather sheaths from Trench 2, Layer 8 ($\frac{1}{4}$).

¹ Somewhat similar pieces were found in Trench 3, see p. 82.

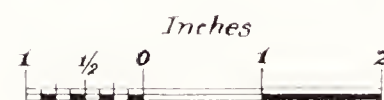


PLATE XV.

Trench 3, Layer 8. Three medieval leather sheaths (see pp. 96-7) [crown copyright reserved]

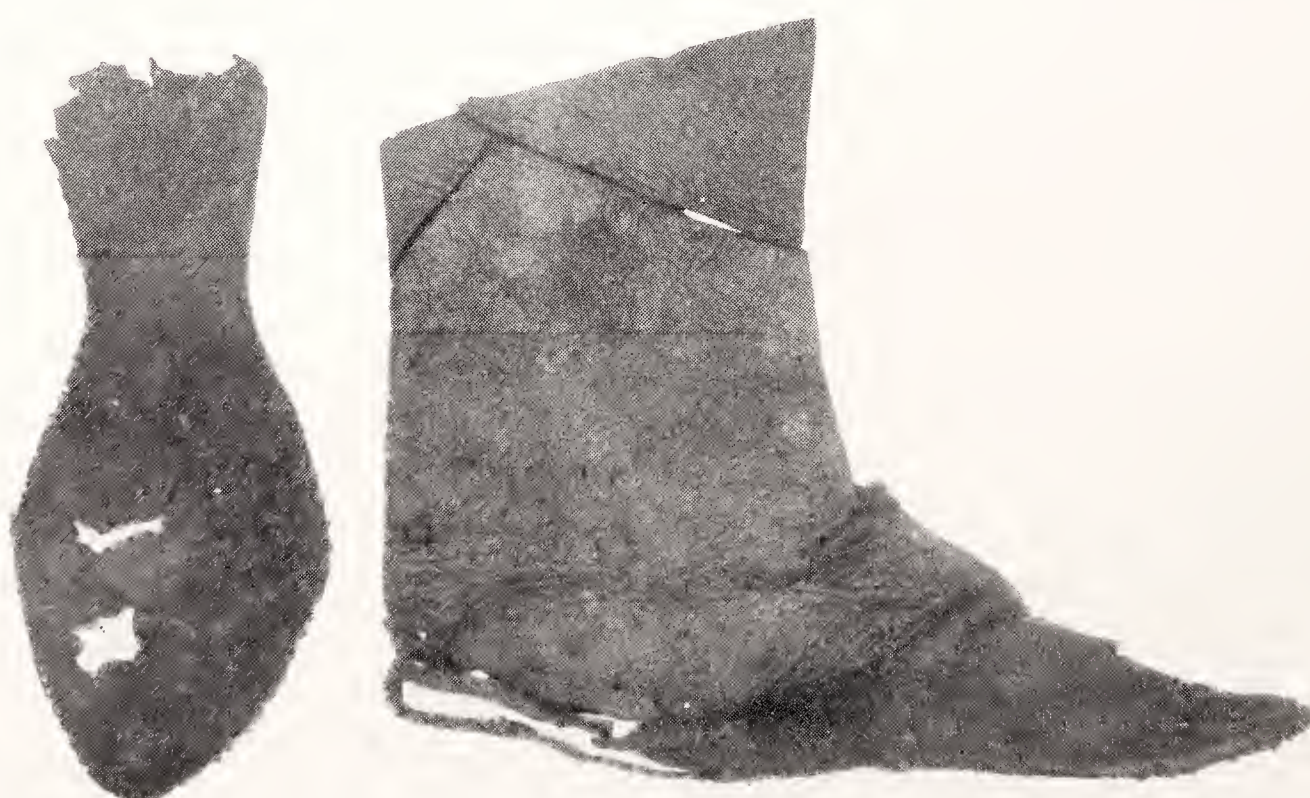


PLATE XVI.

Trench 2, Layer 8. Medieval shoe restored (cf. Fig. 26, no. 31).

Five were found, all in Trench 2, Layer 8 in the topmost two feet of the layer. Fig. 9 shows the precise findspot of the first one described below. On the dating of the pottery from this layer they are likely to be of twelfth-thirteenth century date.

- 1 - 3. Embossed with zoomorphic decoration (Pl. XV).
 1. Incomplete, pointed end only (7 ins.: 18.7 cms.).
 2. Complete (13 ins.: 32.8 cms.).
 3. Incomplete, pointed end only (6½ ins.: 17.4 cms.).
4. Engraved with blunt instrument. Complete. Crude linear decoration (6 ins.: 17.5 cms.).
5. Engraved. Fragment which appears to have been cut from both sides of a sheath. Elaborate interlocking linear design (5 ins.: 13.2 cms.).

APPENDIX VII

LEATHER SHOE PARTS AND OTHER LEATHER FRAGMENTS (Figs. 23-26)

By A. V. GOODFELLOW AND J. H. THORNTON

Of some 70 specimens examined, 39 were turnshoe soles or fragments of them; there was also one almost complete boot upper (31), a pair of almost complete shoes with the upper and sole of the left foot still thonged together (6 and 7), several upper fragments and miscellaneous thongs and cutting scraps. The variety and quantity of the finds suggests that on the site was deposited the rubbish etc. of a shoemaker's or shoe repairer's shop. Further evidence of this is that the soles themselves in several cases had toe or heel-seat repairs.

Construction

With one exception (1) the only method of shoe construction found was the single-sole *turnshoe* in which the upper and sole were thonged or stitched together inside out and subsequently turned.¹ The exception, a welted insole,² was of very much later date and appeared to have no relation to the other finds.³

All the soles had the stitching holes in a continuous channel⁴ and penetrating from the edge to the flesh side.⁵ The tension of the thread in these holes resulted in a typical scalloped channel about ⅛ in. to ⅜ in. from the sole edge. The stitch length varied from about 6 to 3 to the inch. In a few cases, thread, probably flax, still remained in the holes; in others thonging was still visible, possibly indicating an earlier date. The pattern of the thonging was similar to that already noted in other shoes found in York in 1956⁶ and there was some evidence that an additional strip of leather (sometimes called a 'slip-bead' or 'welt') was included in the seam (6, 7, 13, 50).

Turnshoe soles and hand-welted insoles are practically identical in preparation and appearance. For a turnshoe, however, a firmer leather is chosen since it is in actual contact with the ground in walking, grain side downwards. On the other hand, the welted insole is an intermediate layer between the foot itself and the sole proper and has the grain side upwards touching the foot. In both cases the stitching channel is on the flesh side. In use, a turnshoe sole wears away more at the toe and heel than in the waist (the central portion below the foot arch); the welted insole, however, has little abrasive wear since it does not touch the ground and so retains its uniform thickness throughout its life even though it may conform itself to the irregularities of the undersurface of the foot. All the present sole specimens were measured for thickness at toe, waist and seat (heel-end) and in almost every case the maximum thickness was in the waist (about 3 mm to 4 mm) falling to as low as 1.5 mm. in the centre of the forepart and 2.0 mm. at the seat. The frequency of holes worn in both toe and seat or of pieces missing from the edges at these places marked the final stages in this wearing process. This would appear to be conclusive evidence that the specimens were soles and not insoles and that the turnshoe method was, therefore, the one in common use.

Design

(a) *Uppers*. The only boot upper found (31) followed a most ingenious economy pattern and is described in detail below. It had a marked similarity to some of the Lund (Sweden) boots.

¹ *Textbook of Footwear Manufacture*, ed. J. H. Thornton (National Trade Press Ltd., London) 2nd edition, 1958, pp. 30, 401-5.

² *Ibid.*, pp. 280-4.

³ All the leather finds reported on in this appendix came from Layer 8 of Trench 2 (Fig. 5) with the single exception of this welted insole. It came from Layer 3 of Trench 1 (Fig. 3) (see p. 68) and was, as Mr. Thornton says, much later. On the basis of the pottery, this particular layer could not have been earlier than c. A.D. 1500 and it could have been as late as the nineteenth century.

Layer 8 of Trench 2 was dated by the pottery etc. found in it to c. A.D. 1200-1400. The horner's pit which had been dug into it dated c. 1380-1400. P.W.

⁴ A 'channel' is the marginal groove round a sole or insole in which stitches are placed.

⁵ 'Grain' - the outer or hair side of the skin; 'flesh' - the inside.

⁶ Excavations alongside the South Corner Tower of the legionary fortress, reported in *Y.A.J.* xxxix (1958), p. 528, 2.

Except for 6 and 7, only fragments of shoe uppers were found and their pattern could not be ascertained. As stated above, 6 and 7 consisted of a pair of shoes with the upper and sole of the left foot still joined together. The most important feature of them, however, was that the soles were pointed at the back and turned upwards to meet the backs of the quarters as in another specimen found in York in 1956,¹ and in some of those found at Lund. It was possible to remake the right shoe, the upper and sole stitching holes matching perfectly.

(b) *Soles.* Sizes ranged from size 11's children's (41) to about 14's adults (2). Compared with modern products the shapes of the soles generally followed an excellent 'nature-form' and gave the impression that each had been made to measure, possibly by drawing round the foot. Exceptions to this (12, 34, 51) were very elegantly 'waisted' suggesting that they may have belonged to women's shoes.

Repairs

Several 'clump' soles (foreparts only) were found with stitch or nail holes across the waist end (24, 48, 52) indicating that they had been used to repair worn shoes. The presence of nail or stitch holes in the forepart of some of the full-length soles and surrounding a badly worn area (35), across the waist (38, 32) or across the seat line (15, 23, 32, 35), would appear to show that repairs had been effected by the attaching of new sections. At the seat this was particularly interesting as it marked the arrival of a separate 'heel' for utility reasons long before it achieved height and consequent fashion status about 1600.

Finds other than shoes

No. 5 was a triangular piece of leather formed into a loop and knotted in a most complicated manner; its purpose could not be determined. There were also a number of thongs, scraps with cut edges, etc., some of which probably came from a shoemaker's shop and were very similar to those found in a modern shoe factory.

Date

The sole shapes and stitching holes of most of the specimens suggests twelfth-fourteenth century, the thonged pair with the pointed back (6 and 7) probably being the earliest. The toes in general are not as pointed as they became in the late fourteenth century and then continued until the advent of the broad shoe c. 1480.

In the accompanying drawings (Figs. 23–26), which are one third full size, the grain and flesh sides are indicated by 'G' and 'F' respectively. The scalloped lines, representing the stitching channels, are not accurate as regards the actual number of stitches per inch, this figure being given in the descriptions. Torn edges and holes are shown by dotted lines.

In the following text, fragments which are not illustrated are numbered in italics.

1. Welted insole, probably from a woman's shoe size 13 or 1; straight (not left or right), very much curled at edges (grain side inwards); wood pegs still *in situ* at various places – one in waist and several in seat area, probably to hold a heel on. The flesh side of the insole has a channel for welt-sewing with about 4 holes per inch; thread still *in situ* at some points. Marks across the flesh surface from channel to channel suggests that a bracing thread was used, either to hold the edges of the upper down or to last it. A small hole in the forepart may be where a tack held the insole on to a last.
The narrow almost straight shape of the insole with its duck-bill toe and evidence of a heel suggests a shoe of post-1600, possibly as late as 1850 (heels were not introduced till c. 1600 and women's shoes were normally pointed from then till c. 1800).
This specimen has no constructional or chronological connection with any of the other specimens examined.
2. Very large man's turnshoe sole, possibly right foot with seat portion missing. Width across tread – $5\frac{1}{2}$ ins., length from toe to break at seat – $10\frac{1}{2}$ ins.; probably originally about 13 ins. (size 14). Unusual leather thonging bound over the edge of the joint on one side (inside if a right foot) for a distance of about $1\frac{3}{4}$ ins., the purpose of which is not clear. Unusual scalloped channel of stitching holes round the margin.
3. Crescent-shaped piece of leather with edge-to-flesh stitching holes along part of one edge, about 6 to 1 in., and four larger holes through the complete substance of the leather near another edge and spaced about $\frac{3}{4}$ in. apart. Although the shape of the piece suggests a toecap, the stitch holes and the four other holes do not support this supposition.
4. Thick piece of leather very much curled (flesh side inwards); thickness at curved edge 4 mm. to 5 mm. May be the toe portion of a sole but no stitch holes are visible.
5. Large piece of soft leather in the form of a triangle about 10 ins. long by $3\frac{1}{2}$ ins. wide at the base; the apex is turned back, flesh side inwards, and threaded through a small longitudinal slot, A, then through a second parallel slot, B, to bring it back to the flesh side; it then passes crosswise through a slot, C, in the tongue itself (being twisted en route), then through a fourth slot, D, in the main part leaving the end just protruding on the grain side; this end is then just tucked in to a fifth and very small slot, E. The result of this complicated interlocking is a firm loop in the leather about 1 in. long, the final length of the triangle being about $8\frac{1}{2}$ ins. The purpose of the specimen is unknown.

¹ *Y.A.J.* xxxix (1958), p. 529, 4.

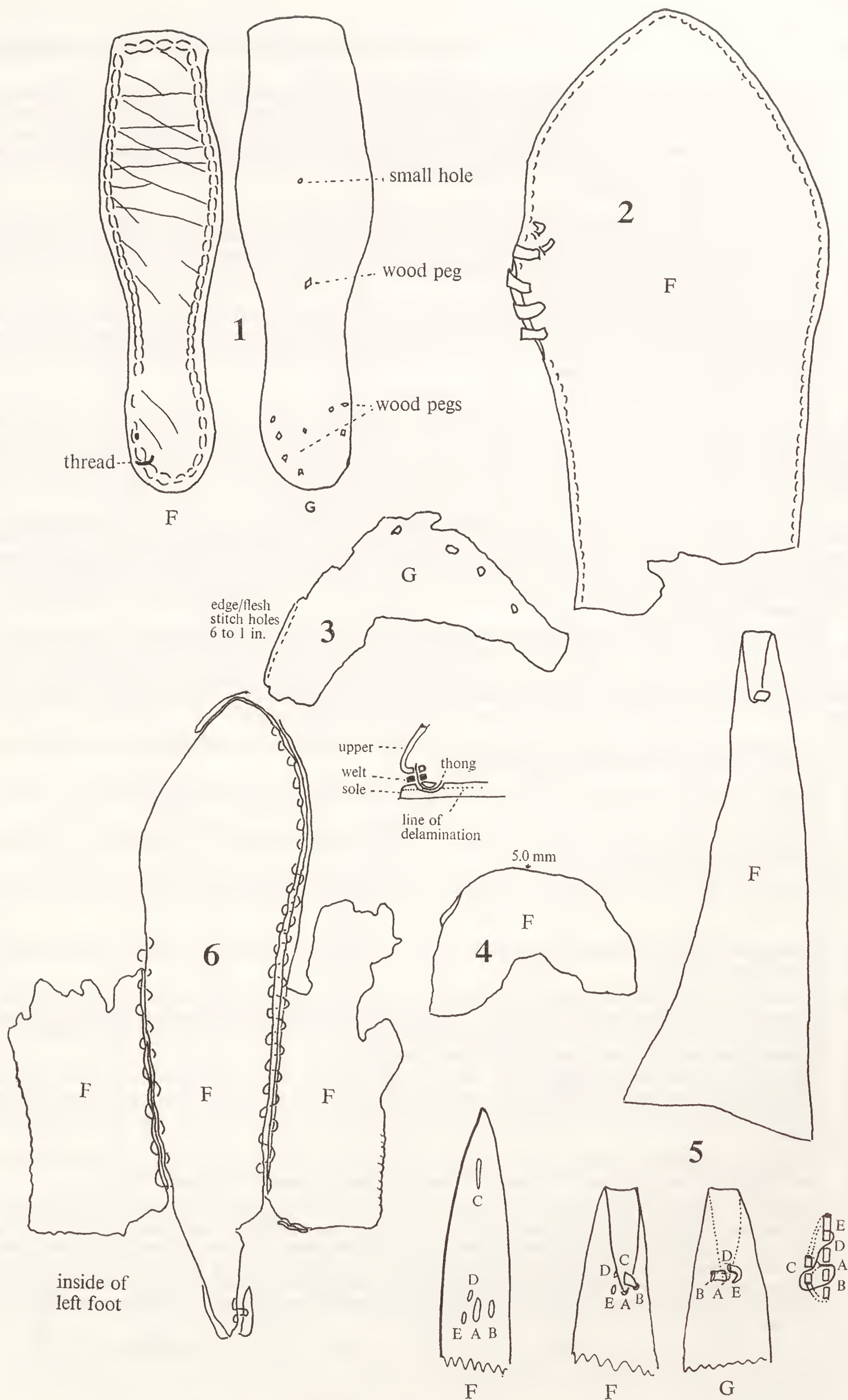


FIG. 23. Medieval leather shoes from Trench 2, 1957 ($\frac{1}{3}$).

6. Left-foot turnshoe sole with portions of the upper still held in position by thonging. The sole has the seat-end extended to a point as 6. Between the sole and upper is a narrow 'welt' or 'slip-bead'. The thonging follows a serpentine line and, due to the delamination of the sole, is exposed on the under surface; there are about $2\frac{1}{2}$ stitches (5 holes) per inch. The quarters are also partly delaminated giving the appearance of a separate lining; their top edge has the usual edge-flesh series of holes giving a scalloped appearance.

7. Right-foot turnshoe sole and a detached pair of quarters originally joined to form a whole-cut upper. The sole has the seat-end extended to a point which was turned upwards and stitched to the backs of the quarters to form part of the upper itself. The upper is no longer held in position on the sole but the scallops formed by the stitch holes on corresponding edges match exactly and it has been possible to restitch them together.

The sole is delaminated, leaving the stitch holes exposed on the bottom; there are a few places where the full substance of sole remains. The quarters are complete from throat to back but have broken away from each other at the throat; they are beginning to delaminate especially along the line of edge-flesh holes at the top edge.

Many pieces of sole-upper thong remain *in situ* in the sole.

Nos. 6 and 7 appear to form a pair of shoes; the soles are the same size and form a mirror-image pair and the quarters are similar. The peculiar back construction of these shoes (the upturned pointed back of the soles) is very similar to that already noted in a York find in 1956,¹ although there does not appear to be the same change in the actual seam construction previously noted at the point where the sole turned upwards; delamination, however, may have masked this.

The inclusion of the 'welt' between sole and upper is interesting. It is still common practice to include such a welt or bead when two pieces of material have to be joined edge to edge at right angles; it helps to prevent the seam from 'grinning' (i.e., being exposed). This constructional device may have led eventually to the welted shoe proper which began to become important in the seventeenth century. A similar 'welt' was noted in one of the York specimens found in 1956² and also occurs in some others of the present finds (13, 50).

The 'serpentine' thonged seam has also been noted in two of the specimens found in York in 1956.³ Microscopic examination is required to determine whether hide thong or vegetable fibre has been used.

The scalloped top-edge of the quarters in both shoes produced by the line of edge-flesh holes has been noted several times and its purpose is not clear; marks of thread are still visible but it is difficult to understand what purpose a thread seam along the edge could have served.

8. Left-foot turnshoe sole, $10\frac{5}{8}$ ins. by $3\frac{3}{4}$ ins. max. width of tread, usual scalloped channel of stitching holes. Delamination starting in several places.
9. Left-foot turnshoe sole, badly worn at seat; usual scalloped channel of stitching holes. 11 ins. by $3\frac{7}{8}$ ins.
10. Right-foot turnshoe sole, $11\frac{1}{8}$ ins. by $4\frac{1}{4}$ ins. Usual scalloped channel of stitching holes with thread in position at some places.
11. Large size right-foot turnshoe sole with usual scalloped channel of stitching holes $12\frac{1}{4}$ ins. by $4\frac{1}{4}$ ins.

12. Incomplete right-foot turnshoe sole with very narrow waist; toe-end torn away. Usual channel. 9 ins. long (see 34).

13. Toe-end of a shoe with both upper and sole stitched together with an inserted 'welt'. A row of holes across the sole portion suggests a repair. The 'welt' has a wedge-shaped cross-section and has a very solid fibre-structure. It could be the margin of the original sole, the toe-end of which, having worn through, has been cut away and a fresh piece inserted.

Microscopic examination of this 'welt' might reveal the direction of the fibre weave and indicate whether it is typical sole leather or welt leather. If the former, then a repair seems probable; if the latter, then the construction resembles that already noted in 6 and 7 but more advanced as the seam is finer.

14. Incomplete right-foot turnshoe sole, toe-portion missing and worn very thin at seat (thickness at fore-end is 3.5 mm.; at seat, 1.75 mm.). Usual scalloped channel of stitching holes.

15. Right-foot turnshoe sole $10\frac{1}{2}$ ins. by $3\frac{3}{4}$ ins. Usual scalloped channel of stitching holes with thread in place on the inside waist. A line of holes across the seat suggests a repair and further evidence of this is a hole and a split in the seat; probably an additional seat piece was stitched on to cover these. This seat repair gives weight to the 'utility theory' of the origin of shoe heels, i.e., that in walking a shoe wears most at the back where it strikes the ground first; a repair can be made quite simply as in the present specimen by fixing another piece of leather on top and in doing so a separate heel has been made.

¹ *Y.A.J.* xxxix (1958), p. 529, 4.

² *Ibid.*, pp. 527-8, 1.

³ *Ibid.*, p. 529, 5.

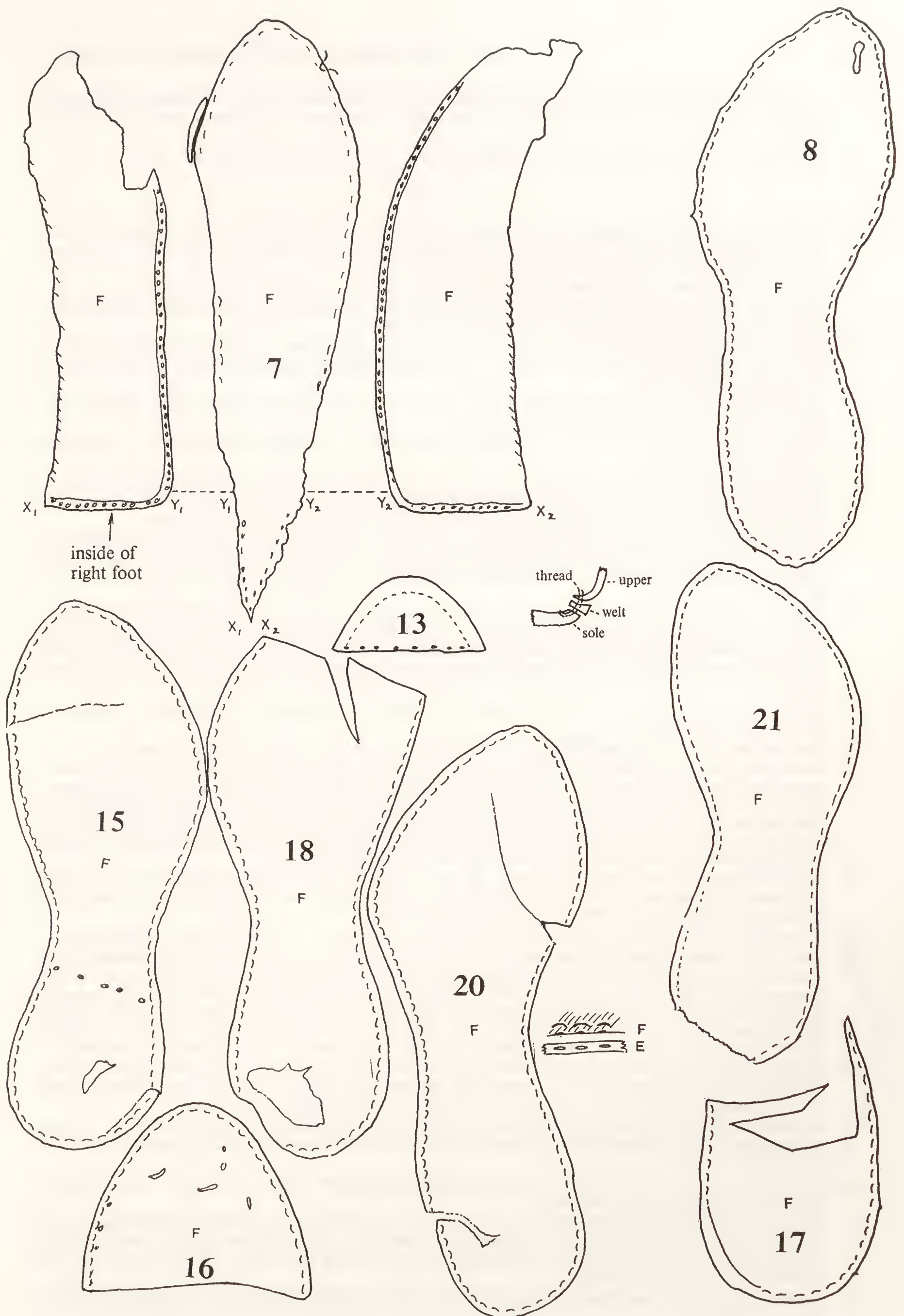


FIG. 24. Medieval leather shoes from Trench 2, 1957 (continued) (1).

16. Forepart of turnshoe sole cut across the tread. Usual scalloped channel of stitching holes round original edge. Short grooves on the flesh side have the appearance of thread marks. $3\frac{1}{2}$ ins. by $4\frac{3}{4}$ ins.
 17. Seat piece of turnshoe sole with usual channel. Piece cut out at fore-end. $3\frac{3}{8}$ ins. wide.
-
18. Left-foot turnshoe sole, badly worn at seat, toe portion missing. Usual scalloped channel (about 5 or 6 stitches per inch) on flesh side; row of widely spaced holes (about 2 or 3 per inch) round seat on grain side only – possibly traces of a seat repair.
 19. Right-foot turnshoe sole, toe-end missing, $11\frac{1}{4}$ ins. by $4\frac{1}{4}$ ins. Usual scalloped channel, $3\frac{1}{2}$ to 4 holes per inch. Parallel cuts obliquely across tread and seat – possibly flay cuts on the original hide. Delamination commencing along line of edge holes at seat.
 20. Left-foot turnshoe sole, possibly the fellow of 19, $11\frac{1}{4}$ ins. by $4\frac{1}{4}$ ins. Usual channel, about 4 holes per inch. Thread still in position at places and a microscopic examination of this shows it to be a bast fibre, probably flax.
 21. Right-foot turnshoe sole, incomplete at seat, $9\frac{1}{2}$ ins. by $3\frac{1}{2}$ ins. Usual channel, about $4\frac{1}{2}$ holes per inch. Traces of thread in position (bast fibre).
 22. Right-foot turnshoe sole, $9\frac{3}{4}$ ins. by $3\frac{1}{2}$ ins. Usual channel – 4 to $4\frac{1}{2}$ holes per inch. Very much worn at tread and seat.
 23. Incomplete right-foot turnshoe sole, toe and seat portions missing. Usual scalloped channel. A row of holes across seat could be the result of a nailed seat repair. The waist of this specimen is raised above the level of forepart and seat following the configuration of the foot arch.
 24. Forepart portion of right-foot turnshoe sole – possibly a ‘clump’ as the rear edge is straight and there is slight evidence of stitching along this edge and a row of (?) nail holes $\frac{3}{4}$ in. to 1 in. from it. The usual scalloped channel of stitching holes round the outer edges, about $4\frac{1}{2}$ per inch. $3\frac{3}{4}$ ins. by $3\frac{1}{2}$ ins.
 25. Left-foot turnshoe sole, worn away at the toe, torn in the forepart and the seat portion missing, $9\frac{3}{8}$ ins. by $4\frac{1}{8}$ ins. Usual scalloped channel – 5 holes per inch. Near the outside of the fore-end of the seat, a leather thong has been inserted through two adjoining holes and is knotted at one end. This may have been part of a temporary repair or possibly the lower end of the lace of a side-laced boot.
 26. Right-foot turnshoe sole, worn through across the tread, seat missing. Usual channel, 4 holes per inch. $7\frac{7}{8}$ ins. by $3\frac{7}{8}$ ins.
 27. Seat portion of a turnshoe sole, $4\frac{5}{8}$ ins. by $2\frac{3}{4}$ ins. torn at rear end. Usual scalloped channel.
 28. Incomplete left-foot turnshoe sole, $7\frac{1}{2}$ ins. by $3\frac{5}{8}$ ins. Usual channel, $3\frac{1}{2}$ holes per inch at inside waist and 4 per inch elsewhere. A straight cut has been made across the toe and the channel continues down this, suggesting a toe-repair. In the centre of the tread there is a small hole about $\frac{1}{8}$ in. long on the flesh side and only just visible on the grain side. This could have been made by a nail holding the sole on to a wooden last, flesh-side up, during the actual turnshoe making. Delamination has commenced at the inside waist along the line of edge holes.
 29. Left-foot turnshoe sole, toe-portion only, $2\frac{3}{4}$ ins. by $3\frac{3}{4}$ ins. Usual channel, about 5 per inch, but the holes are finer and closer to the edge than in other specimens. Delamination commencing along line of holes on front edge. Very little signs of wear.
 30. Fragment of turnshoe sole with portion of channel, 4 per inch. 3 ‘tunnel’ holes on grain side.
 31. Plate XVI. Boot upper complete except for a small side insert, now missing. The pattern is an excellent ‘economy’ one; a roughly rectangular piece of leather has been cut and folded as shown in diagram; adjoining edges are then ‘closed’ by a butted seam and a small piece of leather inserted to complete the leg. Two small slots on both sides of the upper were presumably used to thread through an instep lace. The lower edge of the upper has a stitching channel, 4 per inch, by which it was attached to the sole. The top edge of the leg has the usual oversewn edge-flesh channel.
 32. Right-foot turnshoe sole, probably a child’s, $8\frac{1}{8}$ ins. by $2\frac{7}{8}$ ins. Piece missing from forepart. Usual channel, about 5 holes per inch. A row of holes across the fore-end of the waist and another across the seat suggest that the shoe was repaired with a forepart clump and a seat-piece.
 33. Incomplete left-foot turnshoe sole, $8\frac{3}{8}$ ins. by $3\frac{1}{2}$ ins. Usual channel, 4 to $4\frac{1}{2}$ holes per inch. Traces of small slots or holes just behind the tread and across the seat suggest repairs to forepart and seat (as in 32).
 34. Left-foot turnshoe sole with very narrow waist, seat incomplete; $8\frac{3}{8}$ ins. by $3\frac{5}{8}$ ins. Usual channel, holes varying from 4 to $5\frac{1}{2}$ per inch.
 35. Turnshoe sole, probably right-foot, seat missing, $7\frac{1}{4}$ ins. by $4\frac{1}{8}$ ins. Usual scalloped channel, holes 5 to 6 per inch. Rows of holes over the forepart suggest that a ‘clump’ repair has been made. There are also traces of holes at the seat suggesting another repair here. This sole is very much less ‘waisted’ than others inspected.
 36. Right-foot turnshoe sole (forepart only), 6 ins. by $3\frac{1}{2}$ ins. Usual channel, $3\frac{1}{2}$ to 4 per inch. Delamination in places.
 37. Right-foot turnshoe sole, $10\frac{1}{4}$ ins. by 4 ins. Usual channel, $3\frac{1}{2}$ to 4 per inch. Several tears.

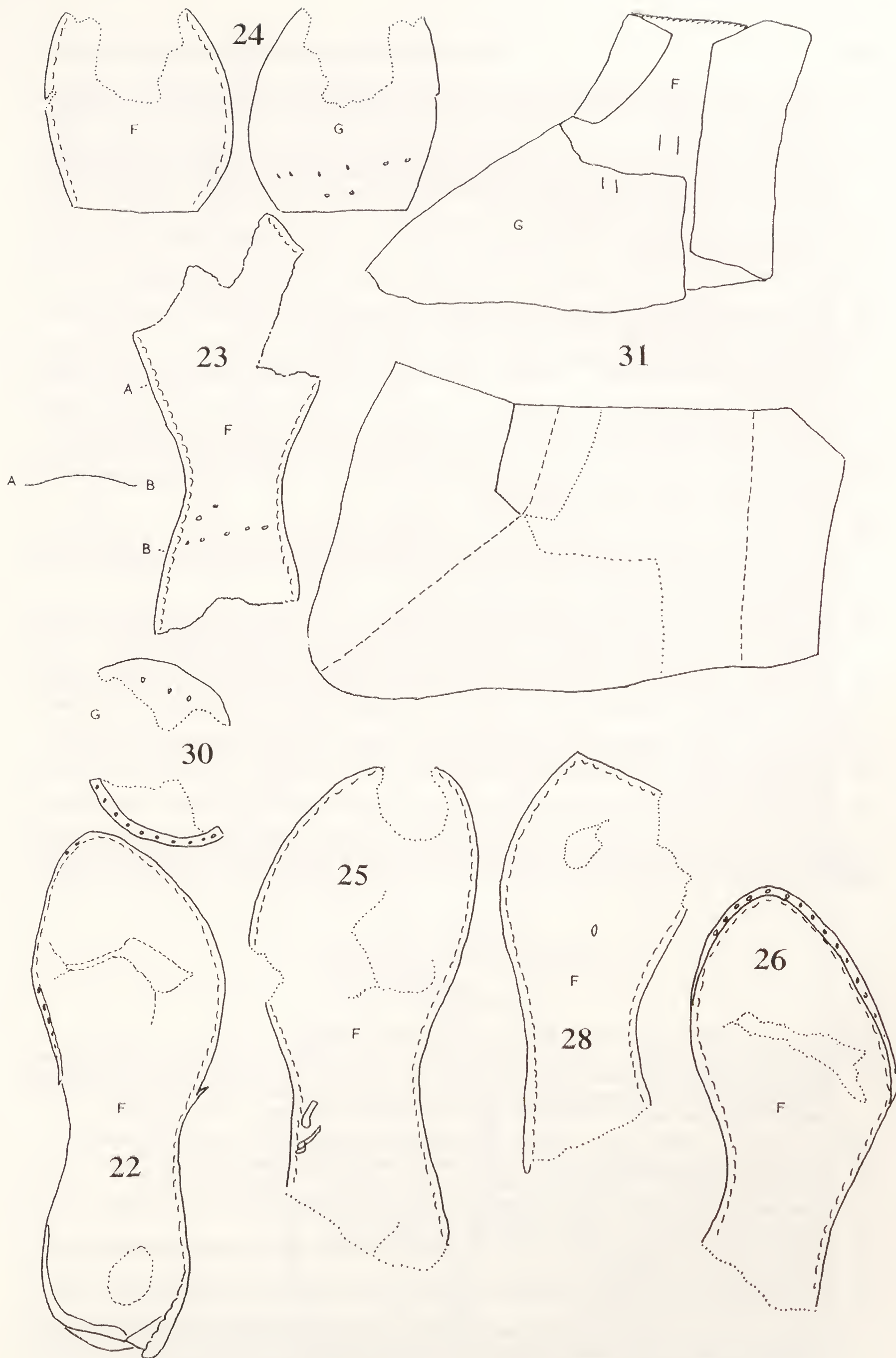


FIG. 25. Medieval leather shoes from Trench 2, 1957 (continued) ($\frac{1}{3}$).

38. Irregular-shaped piece of leather, $4\frac{3}{4}$ ins. by $2\frac{7}{8}$ ins. probably the central portion of a right-foot turnshoe sole. Usual scalloped channel, about 4 holes per inch, along two opposite cut edges; other edges are torn.
39. Rectangular piece of leather, 4 ins. by 3 ins. One edge appears to be an original cut edge, the others are torn. There are several pairs of widely spaced holes near three of the edges; the pairs of holes are opposite ends of 'tunnels' entering and leaving the same side of the leather. The purpose of the specimen and the holes is unknown.
40. Forepart only of a left-foot turnshoe sole, $4\frac{1}{2}$ ins. by $2\frac{7}{8}$ ins. Usual scalloped channel. Delamination at tread and round edge.
41. Right-foot turnshoe sole, badly worn at toe and seat, $7\frac{1}{2}$ ins. by $2\frac{3}{4}$ ins. Usual channel, $3\frac{1}{2}$ to 4 per inch.
42. Roughly triangular piece of leather, $7\frac{1}{2}$ ins. by $2\frac{5}{8}$ ins. at widest point. Very thin (0.75 mm. to 0.85 mm.) and traces of delamination. A hole near one edge. Use unknown.
43. Irregular-shaped piece of leather, 6 ins. by $3\frac{1}{2}$ ins. Three edges are cut and one torn. Faint channel line along two opposite edges. Two short parallel slots near one edge. Possibly a portion of boot upper (as 31).
44. Incomplete right-foot turnshoe sole, $4\frac{7}{8}$ ins. by $3\frac{1}{2}$ ins. Toe-end has been cut away; seat portion missing. Usual scalloped seam at sides and along toe cut. Suggests that the toe was repaired.
45. Scrap of leather with 'tunnel' seaming along one edge, similar to that found on some Roman shoes.
46. Strip of leather 4 ins. long and cut centrally for 3 ins. to form two 'legs'. Possibly an instep lace as found on some Roman shoes. Delaminated.
47. Octagonal piece of leather, $4\frac{3}{8}$ ins. by $4\frac{7}{8}$ ins. No indication of use.
48. Left-foot turnshoe half-sole, worn away at toe, $5\frac{5}{8}$ ins. by $3\frac{3}{4}$ ins. Usual channel, c. $4\frac{1}{2}$ per inch, all round, including the waist cut edge. May be a repair half-sole (as today) butt-seamed on to the original seat and waist after the worn forepart had been removed.
49. Thin scrap of leather, $5\frac{1}{4}$ ins. by $2\frac{1}{2}$ ins., use unknown.
50. Two strips of narrow leather, wedge-shaped cross-section, with stitch holes penetrating the substance, $2\frac{1}{2}$ to 3 per inch, throughout the length. Similar to the 'welt' found in position in 13 and additional evidence that the insertion of this welt was a deliberate constructional feature.
51. Incomplete turnshoe sole, $6\frac{1}{2}$ ins. by $2\frac{3}{4}$ ins. toe portion missing. Usual scalloped stitching channel.
52. Left-foot turnshoe three-quarter sole with usual stitching channel round edges and across waist, $6\frac{5}{8}$ ins. by $3\frac{3}{4}$ ins.
53. Very badly eroded seat piece with traces of stitching channel round the edge, $4\frac{5}{8}$ ins. by $2\frac{3}{4}$ ins.
54. Triangular-shaped piece of leather, $2\frac{1}{4}$ ins. by $3\frac{1}{4}$ ins. possibly the toe-piece of a sole repair. Stitching channel all round.
55. Triangular piece of leather, $5\frac{5}{8}$ ins. by $2\frac{1}{2}$ ins. Line of stitching holes along one edge. Use unknown.

In addition there was a large quantity of miscellaneous clippings. A few of these have been referred to above; they were selected as they display features of interest. Many appear to have come from a shoemaker's shop as they show where shoe sections have been cut either from a skin or from other sections.

APPENDIX VIII ROMANO-BRITISH POTTERY

A. SAMIAN WARE

By BRIAN R. HARTLEY

Trench 2, Layer 8 (Above the floor of tenth–twelfth century building).

1. Form 37, Central Gaulish. Style of DOCILIS, with his usual careless workmanship and high gloss. The ovolo is the less common of the two used by this potter: the festoon and the small Cupid (Déch. 249 = Osw. 408) occur frequently in his work, though curiously enough the former has only been noted on one stamped bowl (unpublished: Aldborough Museum), c. A.D. 125–150.

Trench 2, Layer 13. (Below tenth–twelfth century building and above the stratified Roman layers).

2. Ten sherds, many conjoining, from a large Central Gaulish dish of form 31 (Sb), in rather coarse fabric with fair gloss. A typical Antonine example, probably c. A.D. 140–170. (B.H.)
3. Three sherds from another Central Gaulish form 31 in similar fabric to the above. Antonine. (B.H.)
4. Flange fragment, form 38. Central Gaulish. Antonine. (B.H.)
5. Form 33 (three sherds conjoined). Central Gaulish. Not closely datable, either Hadrianic or, more probably, Antonine. (B.H.)
6. Two fragments from a form 37, probably by ALBVCIVS. Cupid with torches (Déch. 265 = Osw. 450). c. A.D. 150–180. (B.H.)
7. Form 37, Central Gaulish. Perhaps by SERVVS, since an unpublished stamped sherd in the Yorkshire Museum has a similar arrangement of arcades supported by the small striated columns. c. A.D. 160–190. (B.H.)

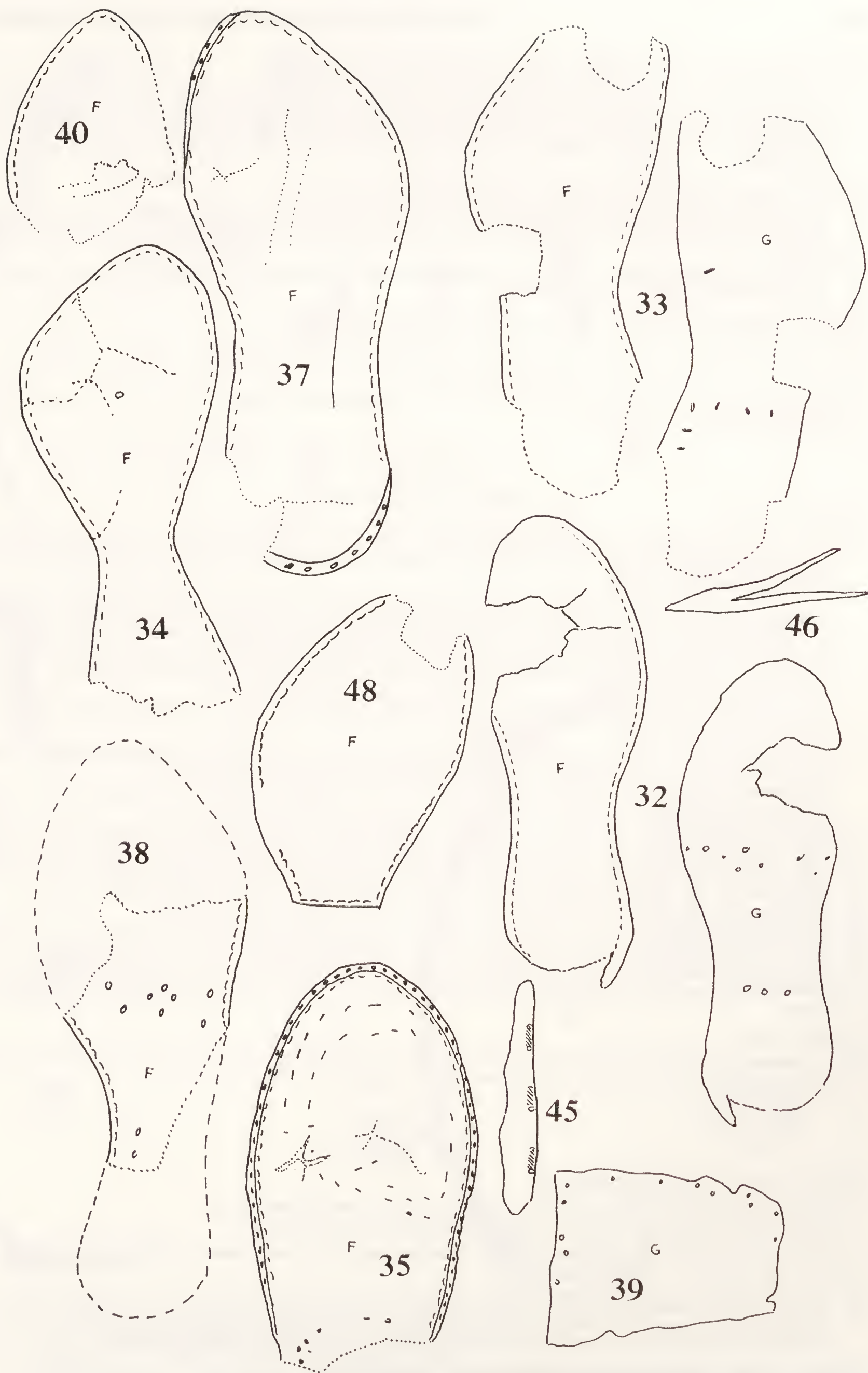


FIG. 26. Medieval leather shoes from Trench 2, 1957 (continued) ($\frac{1}{3}$).

8. Form 37 (rim only), Central Gaulish. Probably Antonine. (B.H.)
9. Form 37(?). A tiny fragment which appears to have a straight line below the ovolo. This feature is found on vessels in several different styles, the only potter who used it to whom we can give a name is PVGNVS of Central Gaul. The feature in the large medallion is probably part of a Pan mask (Déch. 675 = Osw. 1214), which was certainly used by PVGNVS. Antonine, probably c. A.D. 160–190.

Trench 2, Layer 15 (Lying on the latest ?fourth-century Roman floor).

10. Form 37, Central Gaulish. Perhaps by IVSTVS, who used this ovolo and the striated spindles, though his work usually has wavy lines or rows of rhomboid beads as demarcation. c. A.D. 160–190. (B.H.)
11. Form 37, Central Gaulish. Style of CASVRIVS. The large ovolo and the hare (Osw. 2120A) are common on his work. c. A.D. 160–190.

Trench 2, Layer 16A (Lying on latest, ?fourth-century Roman floor).

12. Form 31, Base with stamp REGVLLVS F. Regullus of Lezoux. Antonine. c. A.D. 140–180.

Trench 2, Layer 19 (Lying below second-century floor).

13. Form 37, South Gaulish. The Cupid (Osw. 393), tassels and S-shaped gadroons are all typical of Flavian work. c. A.D. 75–90.

B. MORTARIA

By KATHLEEN HARTLEY

Trench 2, Layer 13.

14. Two large fragments from a vessel of Bushe-Fox type 14, both heavily burnt. The fairly prolific grit, mostly grey with some white, extends over the top of the flange, as often in this type, and is combined with internal rilling.
The type is a well-attested Flavian one, though generally similar vessels are occasionally found in Trajanic deposits (e.g., Corbridge, *AA*⁴ xxxi, 225 and Fig. 10, 19–21). The type had its origin in Gaul, where it was made by such potters as Q. VALERIVS, VERANIVS, ORBISSA, GRACILIS and LITVGENVS. Though it is not impossible that Romano-British potters imitated it, the uniformity of fabric and grit in almost all known examples strongly suggests that most of the vessels of this class were imports.
The Petergate pieces appear to be identified in form and grit to known Continental products and must be Flavian in date.
15. A rim fragment in dirty white, hard fabric with drab slip. The body of the vessel contains much small black grit, and this seems to have been used for the trituration surface too.
Stratified examples from northern military sites leave no doubt that this is a third-century form (cf. *Bewcastle*, Fig. 22, 12 in *CW*², xxxviii).
16. Rim and wall fragment of Corder's Crambeck Type 6 (*Ant. J.* xvii). Rather smooth pale grey fabric with orange-brown slip on the flange. Medium-sized black grit stopping 1½ ins. below the bead.
This type does not appear to have been found at any of the Yorkshire signal stations and must, therefore, be one of the earliest products of the Crambeck kilns. Early or mid-fourth century.
A rimless fragment of the same fabric and type could also belong to this vessel.
17. Rim and wall fragment from a mortarium in dirty white fabric with buff slip: dark brown and white grit. For a close parallel from Corbridge see *AA*² xxxiii, Fig. 6, 29, which was found in a deposit of late third and fourth century pottery. Such late forms of mortaria are notoriously difficult to date closely, but the Corbridge parallel suggests that c. A.D. 275–350 would best fit the Petergate piece.

Trench 2, Layer 19.

18. A fragment of Bushe-Fox type 18. Closely similar to no. 13 except that white grit predominates and that the rilling is less marked. The notes on no. 13 apply. Flavian.

C. COARSE WARE

(Fig. 27)

Trench 1, Layer 12 (dates post-Roman).

1. Rim and shoulder of cook-pot in coarse grey fabric: soot still adhering.
- 2 and 3. Rims of cookpots in calcite-gritted fabrics: soot still adhering.
4. Rim and shoulder of a single- (or double-) handled jar in grey ware: outer surface burnished.

Trench 2, Layer 13.

16. Thirty sherds comprising much of a large storage jar and lid in dull reddish-buff 'legionary ware'. Faint painted decoration in slightly dark colour on the upper part of the body consisting of four horizontal bands, the two upper ones being separated and linked by vertical bands.

Trench 1, Layer 18 (Flavian date, immediately above the subsoil).

5. Seven sherds, some conjoining, of a jar and ?lid in rusticated ware: light grey fabric.

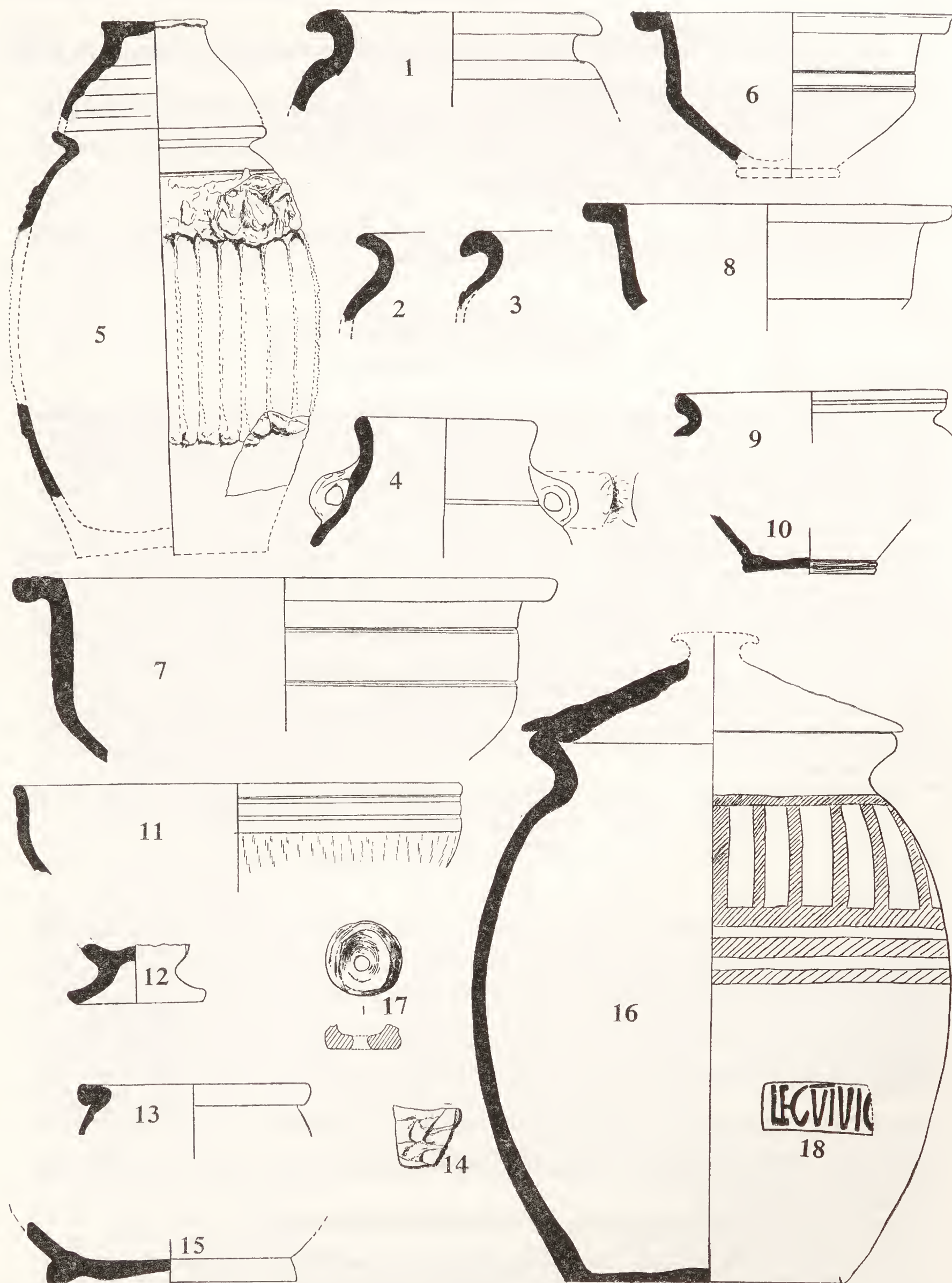


FIG. 27. Romano-British pottery and tile-fragment (18) Appendix VIIIc (1/4).

Trench 2, Layer 19 (immediately below second-century floor).

6. Carinated bowl with flat rim: smooth grey fabric.

7. Rim and part of the side of a campanulate bowl with reeded rim. Buff coloured fabric showing signs of burning.

8. As no. 7. Pinkish-buff fabric.
9. Rim and shoulder of cooking-pot. Fabric bright orange-pink on inside, colour-coated, drab buff on outside.
10. Base of jar. Cream fabric, colour-coated buff.
11. Rim and upper part of side of a bowl, imitating Dr. 37, in cream fabric with rouletting on the outside.
12. Base of candlestick or tazza. Pinkish-buff fabric colour-coated cream.
13. Rim of what was probably rusticated jar in smooth grey fabric. No. 14 might have been a body sherd.
14. Small body sherd of rusticated ware (see no. 13).
15. Well made base of jar in dull, drab, buff fabric.

Trench 3, Layer 16.

17. Base of grey ware jar through which a hole has been bored possibly to make a spindle whorl. Found in a post-Roman context and could therefore be medieval.

APPENDIX IX MEDIEVAL POTTERY

By H. E. JEAN LE PATOUREL

THE POTTERY

The pottery was excavated from the centre of medieval York yet it included no sherd of Middle Saxon ware. The six sherds of that period so far recognised within the modern city, 3 from pitchers,¹ 3 from cooking pots,² have all been found beyond, though only just beyond, the walls of the legionary fortress. The absence of early pottery from Petergate, combined with similar negative results at Blossom Street,³ Feasegate,⁴ Bishophill⁵ and other sites where pottery of such a date might be expected all tend to suggest that in the seventh and eighth centuries pottery, if made at all so far inland,⁶ was very little used.

The range of Saxo-Norman pottery on the other hand is extensive. Although recent evidence suggests that the red, unglazed pottery believed in 1968⁷ to belong to the Saxo-Norman period is in fact of Roman manufacture,⁸ York ware, Torksey type ware, Thetford type ware, northern Stamford and Shelly wares⁹ are found on most excavations of appropriate date in the town. As any single excavation tends to give an unbalanced view of the distribution of these wares, and as there is still much that is unknown about the frequency with which they occur, their place of manufacture and their date relative to one another, the Petergate finds are shown below in tabulated form along with those from other excavations. The only layers at Petergate in which Saxo-Norman pottery was unmixed with later glazed sherds was in Layer 9, 1958 (Fig. 9). This pot appears in the table as Petergate A. None is drawn, since all were body sherds. The remainder is shown below as Petergate B. Since the two sandy fabrics, Torksey and Thetford type ware, have not always been distinguished by excavators in the past, some Thetford type ware from sites other than Petergate may include Torksey type ware under the name Thetford. This is allowed for in the table below:—

Site	Thetford type	Torksey type	Northern Stamford glazed	Northern Stamford unglazed	York ware	Shelly ware	Reference
Petergate (A)	1	2	0	0	2	1	
Petergate (B)	2	1	5	3	8	0	
King's Square (1)	62		13	30	13	2	<i>Y.A.J.</i> xlii (1968), 165-67
King's Square (2)	4	6	1	5	11	0	<i>Ibid.</i> , 155-160
Feasegate (1)	5		1	0	0	0	<i>Ibid.</i> , xxxix (1958), 424
Feasegate (2)	3		0	0	1	0	<i>Ibid.</i> , 523
Hungate	14	13	4	2	14	7	<i>Arch. Journ.</i> cxvi (1961), 76-81

¹ Hungate, *Archaeol. Journ.* cxvi (1961), 76; Tempest Anderson Hall, *Y.A.J.* xxxix (1958), 426; King's Square, *ibid.*, xlii (1968), 167.

² *Ibid.*, Fig. 1, p. 166, 1-3.

³ Excavations 1953-5 (*Y.A.J.* xli (1965), 524-553) and 1968 (unpublished).

⁴ *Y.A.J.* xxxix (1958), 424 and 523.

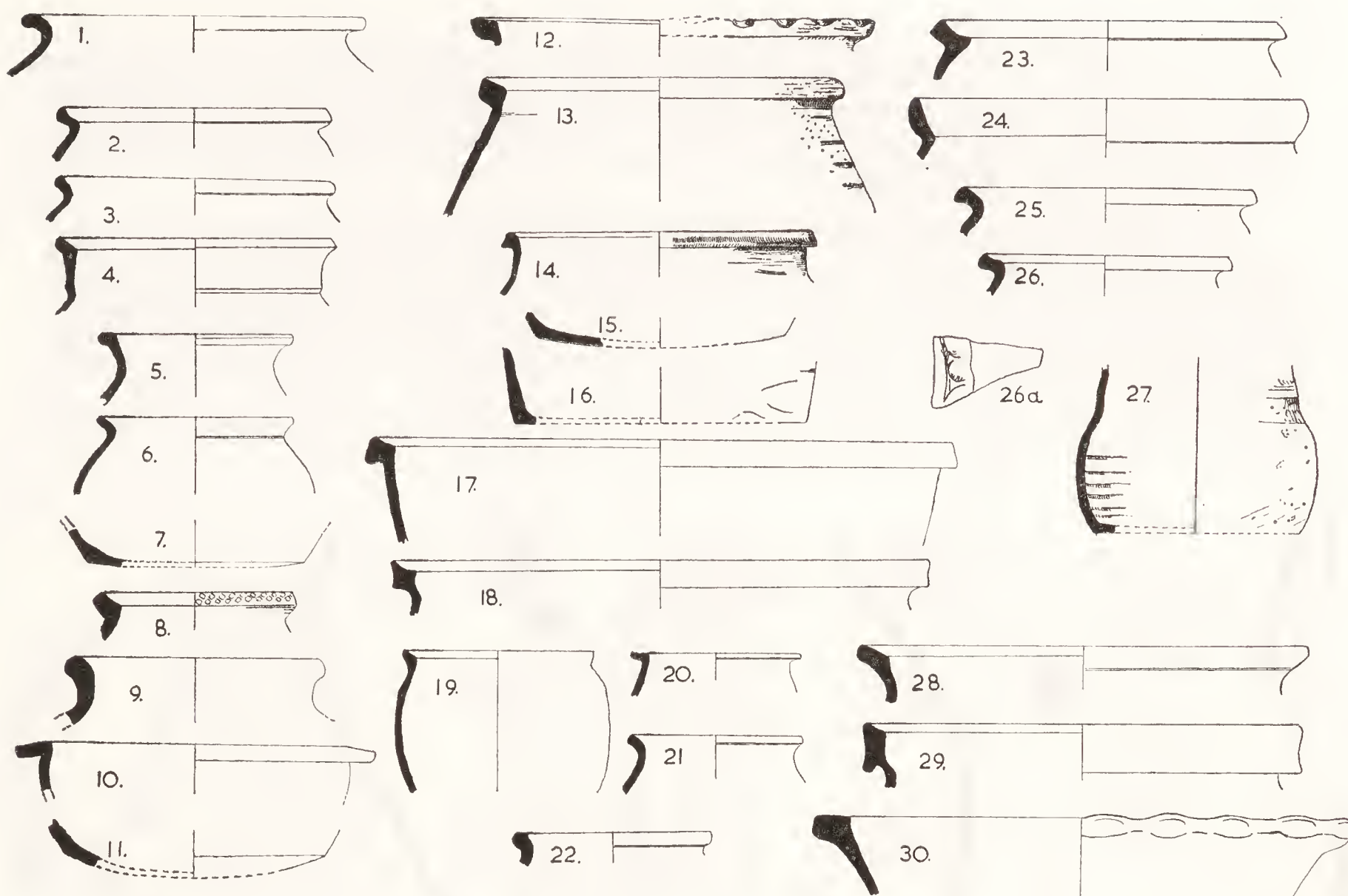
⁵ Mr. H. Ramm of the R.C.H.M. York kindly allowed me to examine this pottery.

⁶ It has been found at Whitby, though not recognised at the time of the excavation of the Saxon monastery there and has been found in the Saxon church at Wharram Percy.

⁷ *Y.A.J.* xlii (1968), 129-30.

⁸ The York Excavation Group has found it sealed in a Roman level in an excavation in the grounds of the Borthwick Institute, York. Information from Mrs. Edna King.

⁹ Names for these early fabrics were agreed at Ilkley in 1968 by those working on them at the time. A corpus of the material is in preparation.

FIG. 28. Medieval pottery ($\frac{1}{8}$).

ILLUSTRATED SAXO-NORMAN POTTERY (see Fig. 28)

- 1-3 York ware cooking pots.
- 4 Unglazed northern Stamford ware jar.
- 5 & 6 Northern Stamford ware cooking pots.
- 7 One of 3 glazed northern Stamford ware pitcher bases.
- 10 Bowl in the same fabric, darker than usual.
- 8, 9, & 28 Thetford type ware cooking pots.
- 11 Torksey type base.

EARLY MEDIEVAL POTTERY

Layer 8 (Fig. 9) seems from the pottery to have been an undisturbed level of twelfth or perhaps early thirteenth century date (Fig. 28). There were 6 northern Stamford ware sherds, some dozen of the very hard variety of pimply ware which is found in twelfth century contexts and two Thetford type sherds. The only other pottery apart from a few Roman strays was 26A (Fig. 28), which matches closely in fabric and glaze with rim 26 from the layer above. These are important finds for they resemble very closely the early medieval splashed wares of the Nottingham region,¹ hard, pink-brown fabric with pitted glaze splashes, developing, on 26A, into more decided patches of greenish brown. It has been clear for some time that a stylistic link exists between Nottingham pottery and the thirteenth-century Humber ware of Doncaster² with its inward sloping rims and cut bases, but we seem to have here an earlier link which it is difficult as yet to interpret and to fit into the developmental pattern in York.

Associated with floor 7 (Fig. 9) above this level were a dozen sherds, including 7 rims in pimply ware among which were nos. 12, 13 and 14 (Fig. 28) but no glazed material and the layer need be no later, as far as the pottery evidence goes, than the early thirteenth century.

ILLUSTRATED POTTERY (Fig. 28)

- 12-16 Pimply ware cooking pots. Flat and rounded bases were found in about equal proportions.
- 17-18 Bowls in similar fabric.
- 27 Similar, but an unusual shape.
- 26 & 26A Splashed ware.

¹ *Trans. Thoroton Soc.* lxxix (1965), 63.

² The characteristic Doncaster sections are nos. 1 and 4, Fig. 67, *Med. Archaeol.* x (1966), 161. The Nottingham pottery consists of recently found kiln material from within the town kindly shown to me by Professor Barley and by Mr. A. MacCormack.

HIGHLY DECORATED POTTERY

The fabrics found in York during the period when highly decorated pottery was in use were discussed in the recent report on excavations in King's Square.¹ They were classified as York buff, York white, East Pennine gritty ware and Humber ware. Since then *York buff* has been identified as originating at the Brandsby pottery some 13 miles north of the city.² It remains probable that the fabric then called *York white*, a greyish white ware with gritty inclusions usually glazed to a cucumber green, was made either within the city or very near it.³

The Petergate horner's pit (Fig. 5, Layer 10) contained over 500 sherds, of which no more than half a dozen could be matched to any other. The date range of the pottery was from the Saxo-Norman period to the end of the fourteenth century. Since much of this pottery was of earlier date than that contained in Layer 8 into which the pit was cut it is likely that the fill was brought from elsewhere. Neither Layer 8 itself nor the horner's pit included Humber ware. The decorations represented comprised stripwork with and without overstriking, line and pellet work, continuous rouletting and a seal stamp, none of which need be later in date than the end of the thirteenth century.

In Trench 3 (Fig. 9) the layers from 6 upwards were greatly disturbed and contained material as far apart in date as Stamford ware and German stoneware of the sixteenth century.



FIG. 29. Medieval pottery (continued) (1/5).

ILLUSTRATED POTTERY (Fig. 28)

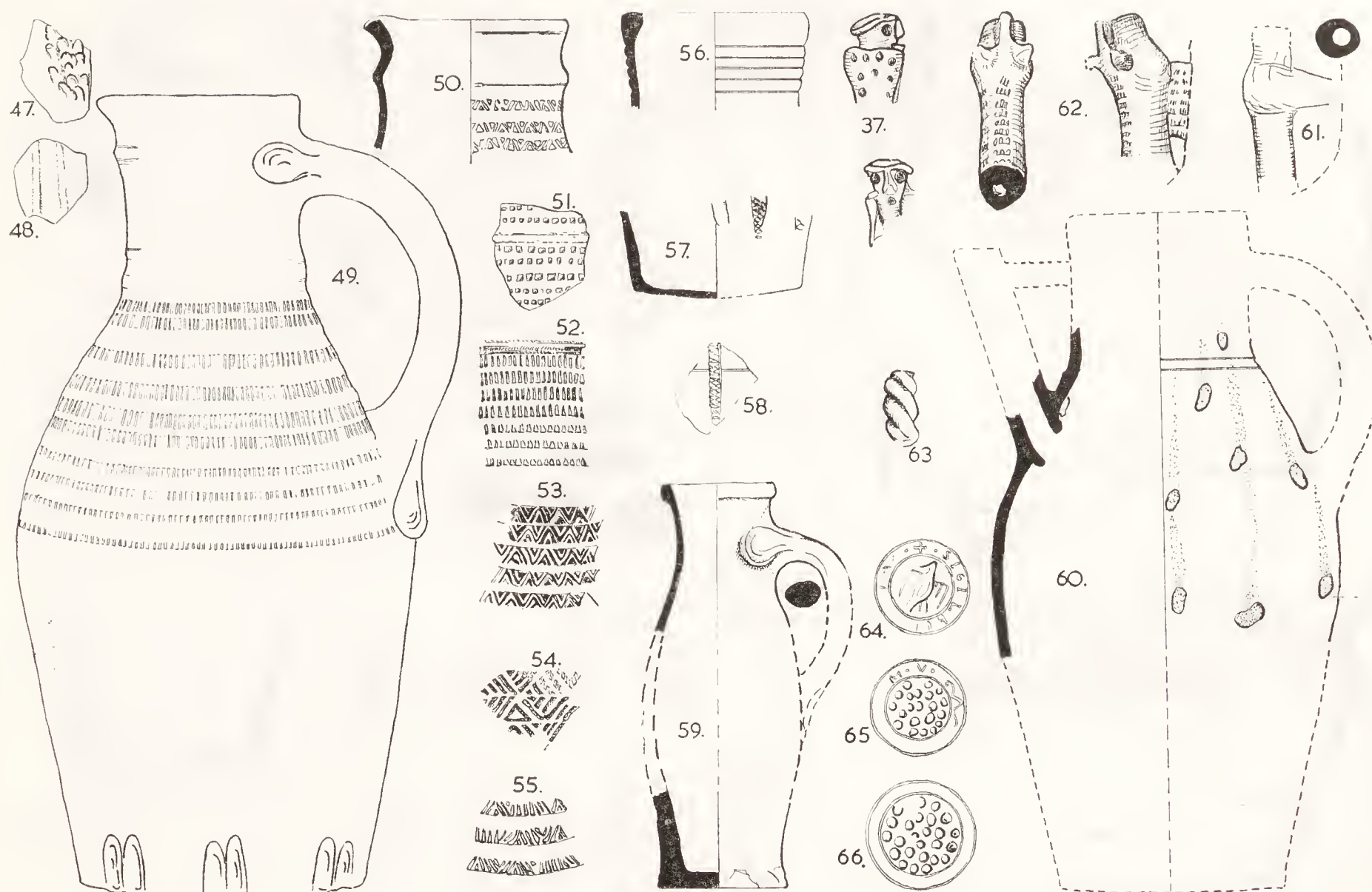
Cooking pots:

- 19 Brandsby ware, with spot of glaze on exterior.
- 20-21 Pimply ware.
- 23-24 Fourteenth-century Humber ware with either buff slip or decayed glaze on surface.
- 22, 25, 28 Slightly gritty grey fabric of unknown origin.
- 29-30 Staxton ware from south side of Vale of Pickering.

¹ *Y.A.J.* xlii (1968), 158-60.

² I am in course of excavating this site which has produced several tons of waste material.

³ I discussed the written evidence for pottery making in the city in *Med. Archaeol.* xii (1968), 112. The archaeological evidence for a pottery industry, though circumstantial, seems to me conclusive.

FIG. 30. Medieval pottery (continued) ($\frac{1}{3}$).*Glazed wares (Figs. 29, 30, 31):*

- 47-48 Lustrous dark green glaze over scales and strip work.
- 49 The rouletted pitcher from the Yorkshire Museum (1971-287) shows the characteristic shape of pots from which sherds 50-55 with complex geometrical rouletting, are likely to have come.¹
- 56, 58 Two of a number of jugs in York white ware with bright green glaze.
- 57 Developed Stamford ware with apple green glaze.
- 60-63 Parts of tubular spouted jugs of local make. Twisted subsidiary handles are frequent and the spouts are made both with and without a septum.
- 64-66 Examples of seal stamps.²
- 67-68 Handles in York white. The 'wing' treatment of the upper handle is common in York and one of the points which distinguish York from Scarborough pottery, but it is also fairly common in London.
- 70 Skillet in gritty fabric.
- 71-79 Examples of treatment of vertical strips.
- 80 Handle sections.
- 81 One of several finger-printed bases in York white (Hurst group 3).³
- 82 Horse aquamanile or finial, York white.

Layer 5 (Fig. 5) differed from the previous deposits in that many sherds were large and there were a number of joining fragments so that it was possible in some cases to build up pot profiles. A high proportion of sherds were decorated and although many of the motifs used in the pit group and in Layer 8 were repeated, it was noticeable that there were no seals, medallions or stamps and that there was a considerable increase in the use of colour, either in the shape of coloured slips (e.g., no. 42) or by the use of coloured glaze, or clear glaze over a body which fired to orange. It is difficult to assess the extent to which such changes reflect a genuine development in decorative fashion and how far they are due to the chances of survival.

¹ For the range of this type of decoration and its affinities see *Med. Archaeol.* xiv (1970), pp. 113-125.

² These stamps, made in York, are to be discussed in a forthcoming article.

³ *Med. Archaeol.* vi-vii (1962-3), 296.

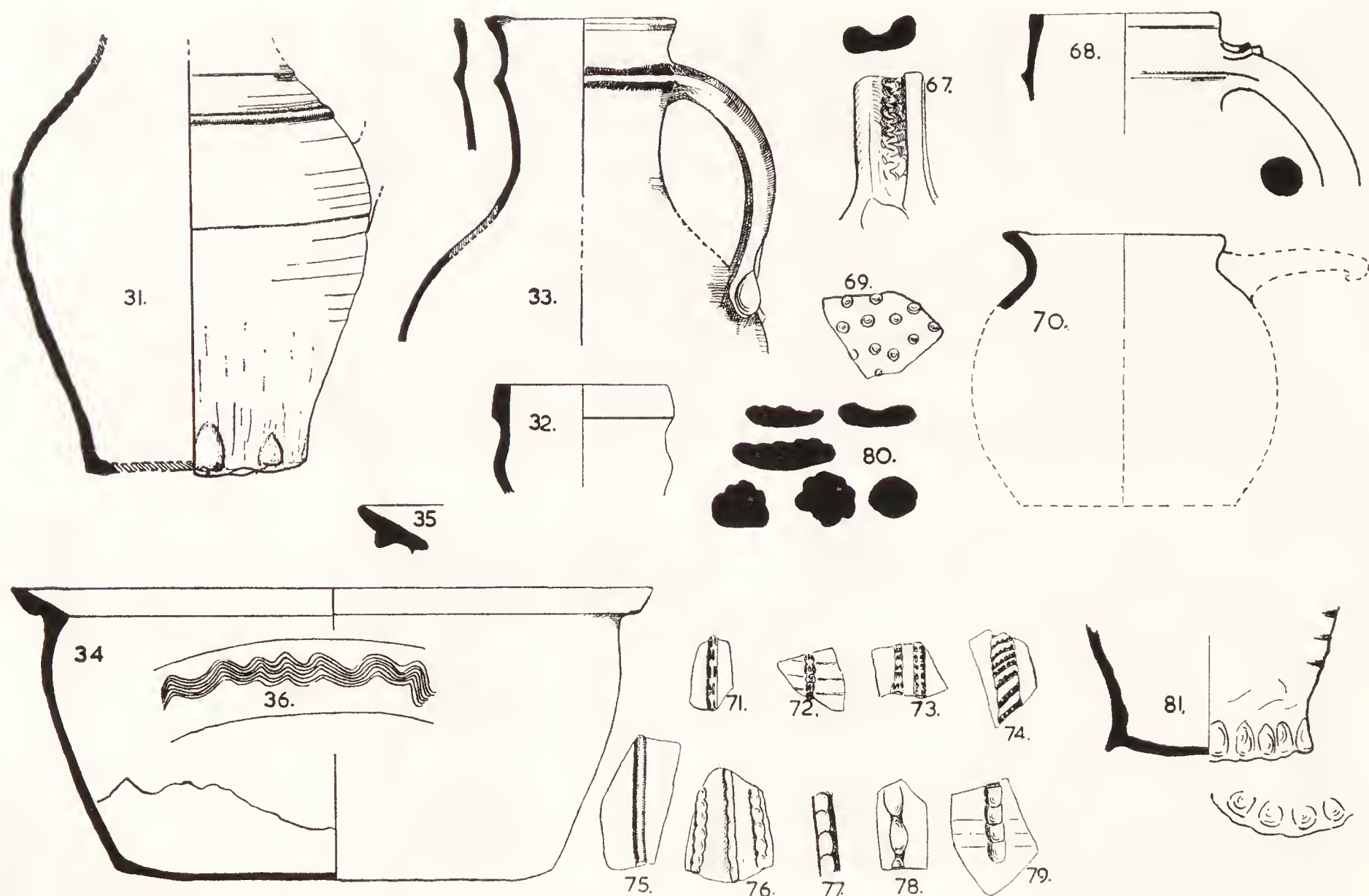


FIG. 31. Medieval pottery (continued) (1/2).

ILLUSTRATED POTTERY from Layer 5, Trench 2 (Figs. 30 and 32).

- 31-33 Jugs in York white ware with bright green glaze.
 34-36 Brandsby ware bowls; the moulding on 35 is characteristic and the wavy combing on the rim of 36 is a common feature at this kiln.
 37 Figure from a knight jug in York white ware. There is considerable variety in the treatment of these figures in York.¹
 38 Dark brown flowers applied over a lighter brown surface; the glaze extends a little way into the inside of the neck.
 39 Line and pellet work in two shades of green, a common decoration in central Yorkshire.
 40 Brown pellets on light green.
 41 Rim of a line and pellet jug; details vary in this design, the groups of incised lines may form chevrons, zigzags or diamonds; the pellets, whether brown, dark green or self coloured are arranged within the zones of combing.
 42 Orange jug (clear glaze over a red fabric), the pellets and wavy lines red, the straight lines in cucumber green.
 43 Zoomorphic aquamanile with good dark green glaze.
 44 Ram's horn from aquamanile; this and the previous vessel in York white.²
 45-46 Line and scale work, dark green glaze.

Decorations from this layer not illustrated include vertical applied strips in dark brown or green; horizontal wavy combing and incised lateral bands in groups of four.

POTTERY FROM LATER FOURTEENTH AND EARLY FIFTEENTH CENTURIES

Very little late medieval pottery was found. The upper levels in the first year's excavation (Trenches 1 and 2) produced plain jugs, usually in slightly gritty buff ware with partial green glaze often from Brandsby. This is in line with the tendency to produce plainer jugs at this time in the country as a whole. The total absence of such fifteenth-century features as bung-holes, multiple handles and pie-crust ornament suggests that the area opened in 1957 was sealed by buildings associated with the cobble floor (Fig. 5, Layer 4), early in the fifteenth century. Above this there was comparatively little build-up of soil

¹ For the Yorkshire knight jugs see *op. cit.* in note 5. Other English knight jugs are considered by G. C. Dunning in 'The trade in Medieval pottery round the North Sea', *Rotterdam Papers: A contribution to Medieval Archaeology* (ed. J. G. Renaud, 1968).

² Compare similar vessels at Scarborough, J. G. Rutter, *Medieval pottery in the Scarborough Museum* (1961), Pl. I, and *op. cit.* in note 5, Fig. 49, no. 76.

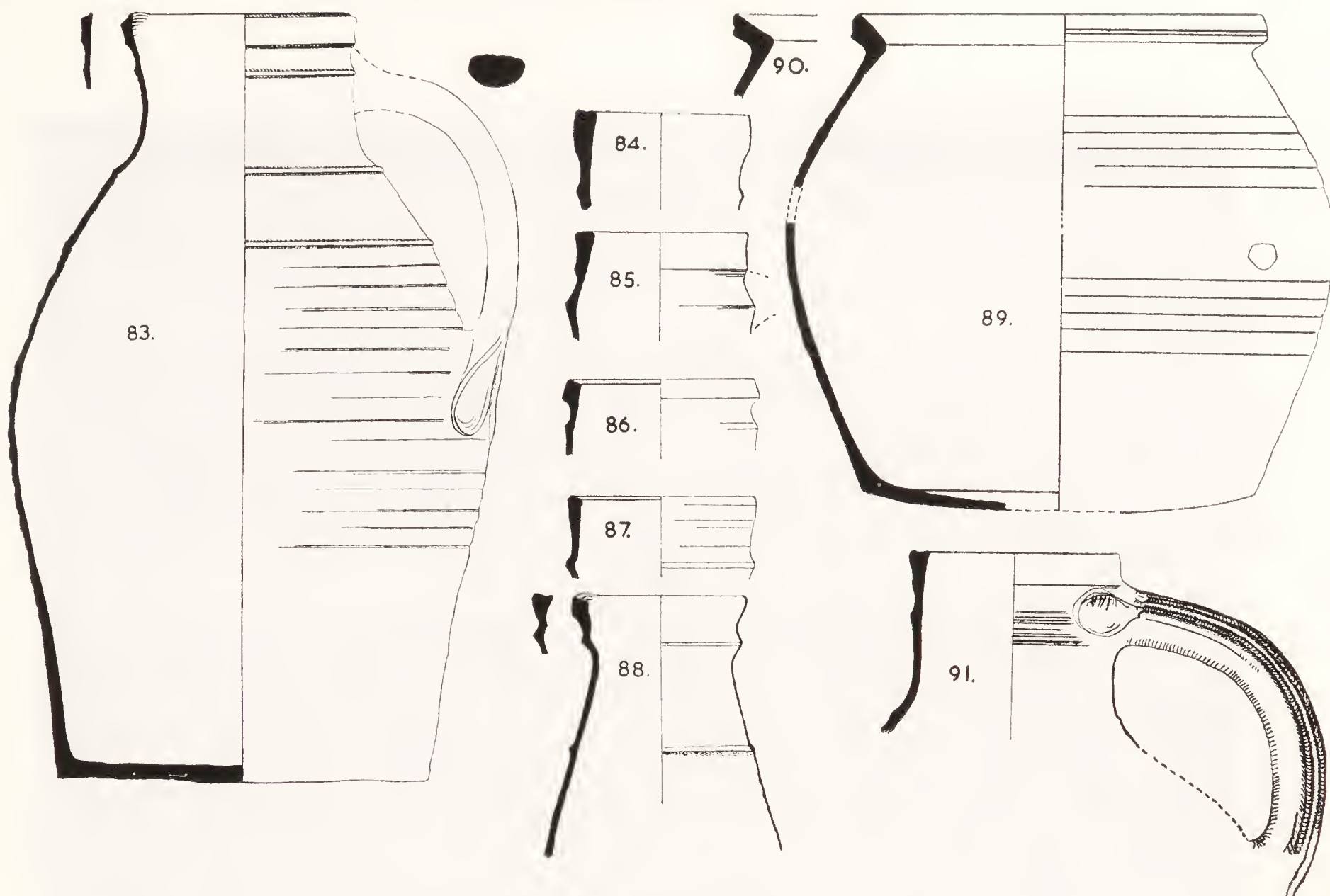


FIG. 32. Medieval pottery (continued) (†).

and few late sherds appeared even among the surface finds. In the second year's excavation (Trench 3, Fig. 9) the pottery in the upper levels was considerably more mixed, but again, only a couple of dozen sherds could be assigned to the period after 1400. 59, a Skipton-on-Swale type jug, the only one of its kind, was found in an upper layer. The straight-sided jug (88) is closely paralleled in shape by one from a mid-fourteenth century kiln at Cowick, and another from a building not earlier than 1383 at Rest Park.¹ A cooking pot from Fig. 5, Layer 3B) (89) contained a metallic slag, suggesting industrial rather than culinary use. Again the shape resembles fourteenth century types from West Cowick.²

ILLUSTRATED POTTERY FROM UPPER LEVELS

- 59 Skipton-on-Swale jug in Humber-ware.³
- 83 Large undecorated pitcher, green glaze on upper part, associated with Hearth no. 2 (Figs. 5 and 6).
- 84-87 Series of rims in Brandsby ware. These do not vary between the horner's pit complex and the upper levels.
- 88 Straight sided pitcher, a slightly gritted fabric differing from the above. Mottled green glaze.
- 89 Cooking pot containing metallic slag; a hole has been cut in the side after firing. Slightly gritty grey ware.
- 90 Though similar in form to 89, this came from Trench 1 (Fig. 3, Layer 9) and should be much earlier in date.
- 91 As 83, but with round, grooved handle; a type common both at York and Scarborough.

ACKNOWLEDGEMENTS

The plans and sections have been re-drawn by Miss C. J. Hatcher based on the originals drawn by the late Mr. Harold Richardson. Unless otherwise stated the photographs were taken by Mr. Robin Hill of the Huntley Museum, Edinburgh.

The Council of the Society wishes to thank the Department of the Environment for a grant towards the cost of publishing this article.

¹ To be published in H. E. Jean Le Patourel *Four Yorkshire moated sites*, The Society for Medieval Archaeology, monograph series, forthcoming.

² Kiln excavated by P. Mayes. Report forthcoming.

³ A pot of this type (last coin 1399) was found at Skipton-on-Swale (D. A. Thompson, *Inventory of British Coin Hoards* (1956), Pl. IV. The jugs are among the more common artefacts on late medieval sites.

AN EXCAVATION AT WEAVERTHORPE MANOR, EAST RIDING, 1960

By T. C. M. BREWSTER

Preface

During the winter of 1959-60 it became necessary to extend the cemetery of Weaverthorpe. The only area owned by the Church and suitable as an extension was the parcel of land due east of the 1959 churchyard and within the area designated as an ancient monument and originally thought to be a Roman fort. Agreement was reached between the Rev. Maddox, the Parochial Church Council and the Inspectorate of Ancient Monuments to excavate the area prior to its utilisation as a churchyard. Excavation was undertaken by T. C. M. Brewster during 1960. The greater part of the site was stripped to the natural, an examination was made of the pond site to the north, and the northern part of the earthworks was sectioned. The finds have been presented to the Bridlington Museum by the Church.

ACKNOWLEDGEMENTS

The Church Council of Weaverthorpe and the Rev. V. G. Maddox did everything in their power to assist the excavations. Great assistance was given by J. G. Hurst and the late S. Black (York) of the Inspectorate of Ancient Monuments in the preparation for the excavation and providing suitable funds and equipment. The excavation staff included T. C. M. and A. Brewster, M. C. Faragher and the late F. G. Brook who undertook much of the plan drawing, J. Atkinson, F. Robson, H. Wilson, H. Hanson and E. Davies. Volunteers throughout the excavation were G. Wilson, F. Jones and Mrs. Z. Mountford. In the preparation of the report special mention must be made of D. Neal, chief illustrator of the Inspectorate, in the preparation of the final drawings, and J. Earnshaw for the pottery drawings after the originals had been lost.

I. INTRODUCTION

The Church and Manor of Weaverthorpe are located on the lower northern slopes of the Great Wold Valley, East Riding of Yorkshire; just above the village which lies in the valley bottom (Pl. I and Figs. 1 and 2). Surface soil consists of dark humus and rounded chalk stone and chips approximately 6 to 9 ins. in depth. Beneath rests frost-fractured chalk with some yellow-brown marl, or solid rock where the talus has been eroded. This stratum belongs to the hard Middle Chalk of the Cretaceous system; the Upper Chalk series being eroded away entirely in East Yorkshire.

Throughout the length of the Great Wold Valley from Wharram-le-Street to Rudston runs the bed of an intermittent spring-fed stream known as the Gypsy Race. At Duggleby to the west and at Weaverthorpe the stream flows longer during the year than anywhere else on its route. When, after a heavy snowfall and subsequent thaw, the Gypsy runs in full spate it has an extremely powerful flow and floods hundreds of acres. When the water table was higher than at present, prior to c.1930, the stream must have provided a reasonable supply of water for longer in the year than it does now. It is possibly due to the water supply that the village of Weaverthorpe was chosen from four others as a site of an important church and manor by the founder. Certainly all the villages in the Great Wold Valley are located on the line of the Gypsy. All, like Weaverthorpe, depended upon large dew ponds or meres as secondary sources of water in drought conditions, or during the latter part of summer when the flow had ceased or was feeble. Some wold villages such as Fimber and Fridaythorpe depended entirely upon one large and small dew pond or mere in each case. These were the only source of water prior to the production of pantiles and cisterns for storing rainwater from the roofs of buildings. The larger pond would be used for watering animals, the smaller for the human population. No well was located within the area of the manor enclosure so far excavated; but there was a dew pond north of the twelfth-century hall, just inside the enceint, which may date from the fourteenth-century phase of the manor; certainly it is later than the robbed walls of the twelfth-century structure which it overlaps.



PLATE I. Weaverthorpe Church and Manor Enclosure.

[Crown copyright reserved].



PLATE II.
The Early Hall from the west.

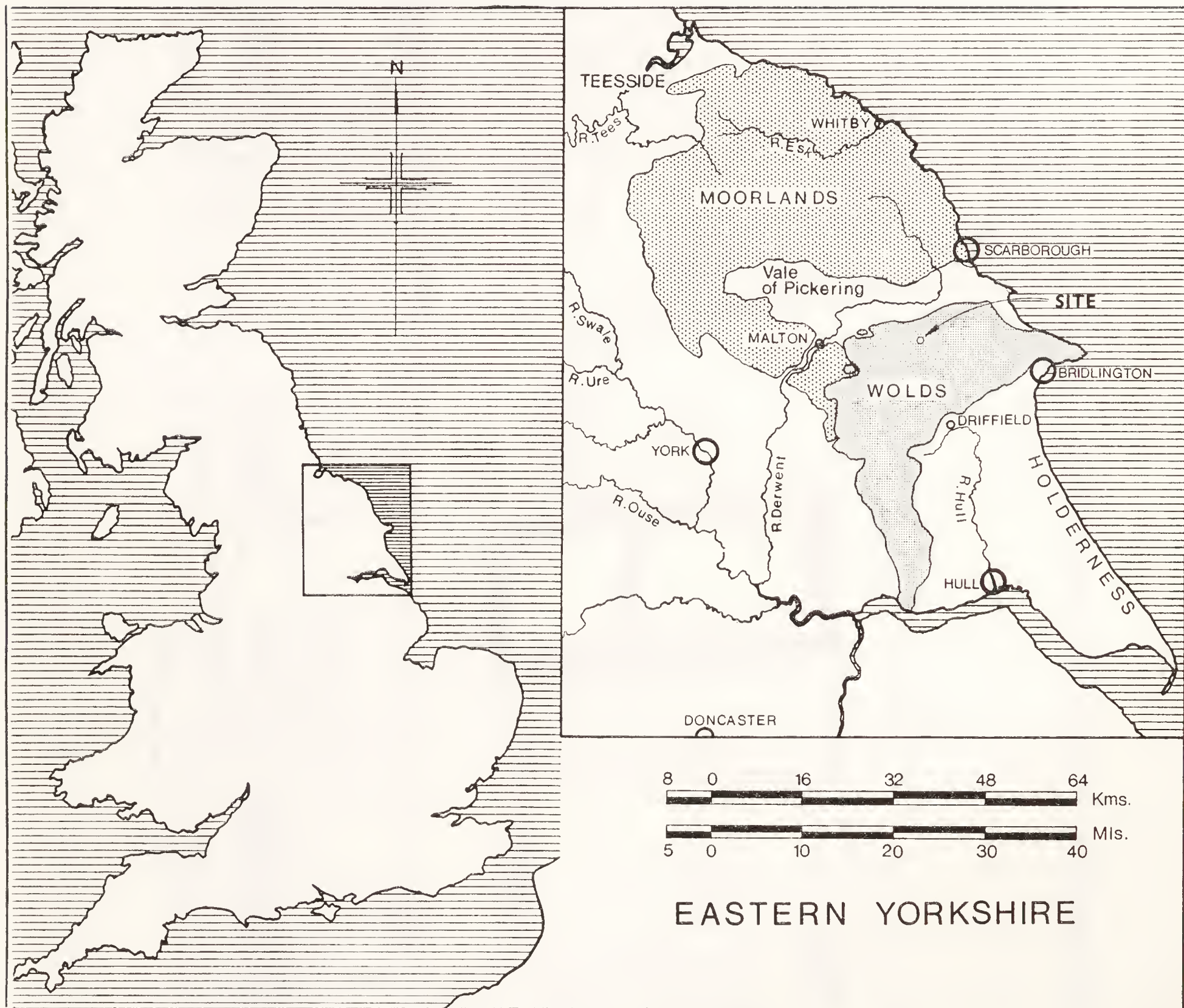


FIG. 1. Location of Weaverthorpe.

The main lines of early medieval communication were, as now, the road travelling east-west along the bottom of the valley from hamlet to hamlet and those roads which traverse northwards to the Vale of Pickering and south across the high lands of the Wold to Driffield and Holderness.

II. THE EXCAVATION

THE PRE-MANOR STRUCTURES (Figs. 3, 5 and 7).

Outside the area of both the twelfth-century and thirteenth and fourteenth-century halls were several earlier features. In addition there were, throughout the site, many eroded fragments of Roman pottery and Romano-British gritted ware, but no pre-historic material. The early features consist of a pit containing fourth-century Romano-British pottery and a shallow hollow filled with soil, rubble and Stamford ware fragments. Sleeper trenches were observed as faint traces beneath the thirteenth and fourteenth-century hall walls and floor. These may well represent earlier structures, but they remain undated.



FIG. 2. Location of Site.

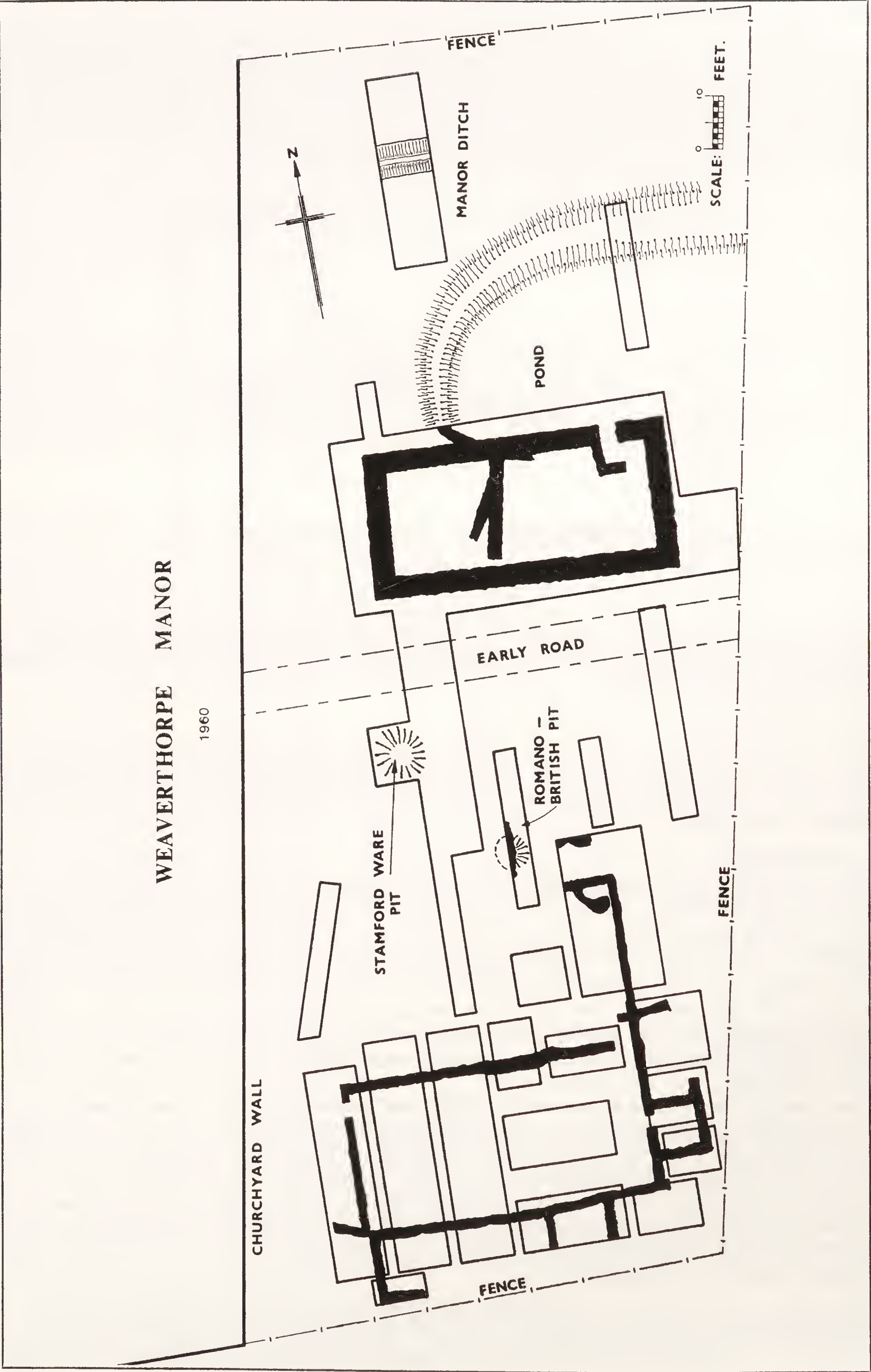


FIG. 3. Plan of Excavations (Left: Great Hall; Right: The Early Hall).

The Romano-British Pit (Figs. 3 and 4).

Immediately northwest of the kitchen area, Fig. 3, was a circular pit 5 ft. in diameter containing dark soil, charcoal and Romano-British pottery sealed in by the footings of a post-Conquest wall. The bottom and lower shapes of the pit were stained red by fire and the lower infilling consisted of charcoal, some dark grey soil and fourth-century Knapton ware sherds. What the function of the hollow was is difficult to deduce, but it was certainly neither part of a corn drying nor a pottery kiln.

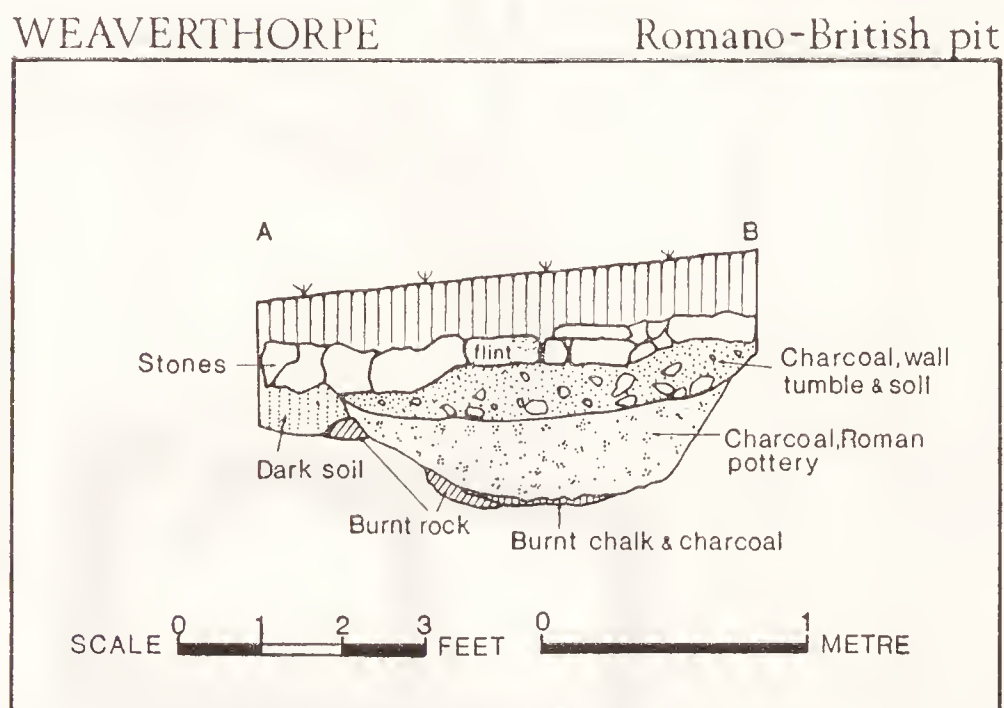


FIG. 4.

Romano-British material occurred throughout the site and there must have been an occupation of the area in the third and fourth centuries. All the datable pottery belongs to this period and not earlier.

Shallow Hollow Containing Pre-Hall Pottery

Due south of the east-west road close to the 1959 churchyard wall was exposed a shallow hollow 6 ft. in diameter (Fig. 3). The infilling consisted of chalk rubble, light grey soil, a few bones of sheep and fragments of Stamford ware dating from before the building of both halls.

The Earthworks

The structures excavated in 1960 were located in the northwest quarter of the area inclosed by the earthwork which lies up the hill to the north of the village. This earthwork is now roughly square, 250 ft. across, but at one time was divided in two by a ditch and bank (Pl. I and Fig. 2). On the northwest side most of the ditch and bank have been obliterated by the churchyard. During the excavations a road was discovered running due east from the nave of the church to the limit of the excavated area (Pl. I). This strongly suggests that the entrance to the manor earthworks was in line with the road. Most certainly the church was constructed across the ditch and bank, or in the gateway of the enclosure. As it is unlikely that the masons would have attempted to lay the foundations of the church across a deep filled-in ditch, and as there is no evidence, after 850 years, of the slightest indication of subsidence in the chancel, nave or tower of the church, it is likely that the church was constructed on solid rock in the level area of the entrance to the earlier manor enclosure. Further, during the re-construction of the church by Street in 1872 no indications were discovered of a ditch, or loose chalk beneath the foundations. Thus it may be suggested that the church is later than the earthworks and as it was built not later than 1130 and not earlier than 1108–1114 the early manor enclosure antedates this period.

Originally the earthwork was believed to be of Roman date. A trial excavation was undertaken by D. Smith, H. Holman and R. H. Hayes in 1951 in an attempt to prove if this was so. The outcome was the location of uneroded potsherds of post-Conquest date

beneath the bank. This pottery belongs to the group known as pimply or gritted ware; the one rim which occurred dates to the late eleventh or early twelfth century. As, apparently from the notes submitted, there was no evidence of disturbance in the bank it must be taken that the sherds are of the same period as the earthwork, or a little earlier. In 1960, during the sectioning of the northern ditch system northwest of the pond (Fig. 7), Staxton ware sherds were recovered from the side of the ditch and the lower part of the secondary scree. Staxton ware does not occur in deposits earlier than the late twelfth or early thirteenth century, therefore, the secondary silting of the earthwork dates to this period, which corresponds with the earlier evidence of the 1951 excavation and the construction of the church. In the upper levels of the ditch infilling there is no indication of any occupational material which could suggest use of the site after the fourteenth century; this confirms the evidence from the other excavated areas. Beneath the early Staxton ware horizon was approximately 9 ins. of silting and marl which must have taken some time to accumulate. It appears, then, from the evidence that the earthwork was constructed after the Conquest. The Parish of Weaverthorpe was recorded as totally waste in the Domesday survey 1086, after the sacking of the North in 1069. Therefore, on ceramic, historical and archaeological grounds there are strong indications that the manor enclosure was dug between c. 1066 and 1108–1114 when the property was sold and the church begun; in all probability its construction dates to 1066–69.

THE EARLY HALL

Due east of the Church, and north of the road running eastwards from the churchyard, within the manor earthworks, were the remains of a slightly rhomboid, but basically rectangular manor hall externally about 57 ft. long, east–west, and approximately 21 ft. in width. The foundations varied from just under 5 ft. to about 4 ft. 6 ins. in thickness. The interior measurements averaged 20 ft. by 49 ft., the variation being due to the asymmetrical nature of the ground plan. In the northeast corner were the vestiges of a doorway formerly protected by an interior wind-shield, or screen of chalk (Pl. III and Fig. 5).

Method of Construction

The footings were built of chalk slabs laid one against another at an angle of about 30 degrees to the horizontal (Pl. IV). Due to frost damage and robbing only the first course of this herringbone constructed wall survived. The mason responsible for laying the wall was obviously totally unaware of the technique required in building in the local chalk and committed the gross error of placing the slabs at an angle. This indicates clearly that the builders did not originate on the Wolds or adjacent areas, and must have worked in limestone, sandstone and similar materials and been unfamiliar with the use of chalk as a building material.¹

Resting on the top of the northern wall of the Hall, and covering part of the floor and hearth, were the wallfall and remains of three later walls.

Wall 1

This, the earliest of the three, rests on fragments of pimply ware dating in this area to not later than the first few years of the thirteenth century when it was completely ousted

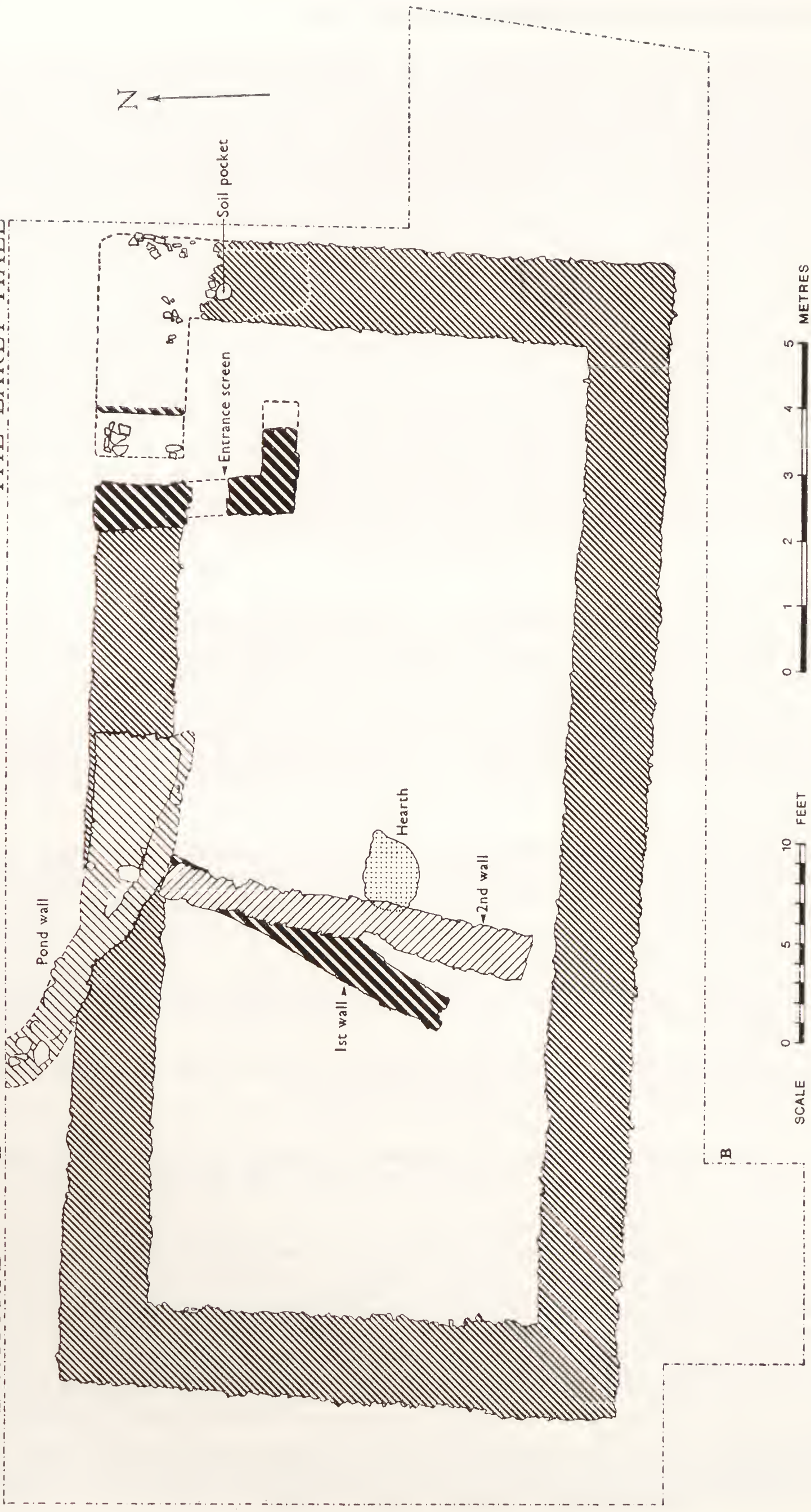
¹ Any building constructed in the herringbone pattern would have collapsed in two or three years by the action of the frost. Chalk blocks used for building must be cut from the living rock and laid horizontally, as in its stratum in the quarry, and left to weather for one winter prior to utilisation. This hardens the stone and shows up any imperfections. Furthermore, when used for construction it must also be placed so the horizontal layers in the rock are parallel with the ground. Failure to do so causes the stone to split into thin slabs and break up after frost. A similar effect takes place if old chalk foundations are exposed to weathering and frost after excavation, even if still laid correctly. Surviving chalk houses and buildings are still common on the Wolds and immediately nearby areas and are bonded with marl, or as in the case of the Weaverthorpe buildings, by chalky rainwash. The last local building constructed in the old technique known to the writer was a cottage erected at Staxton, Vale of Pickering, in 1878, and pulled down in 1960.

This and other information was supplied by the late G. Dobson of Staxton, former master-mason to the Londesborough Estate, Seamer, who, as part of his apprenticeship in the 1870's, was taught the old skills of chalk walling and assisted in erecting the Staxton cottage as a youth.

WEAVERTHORPE

A

THE EARLY HALL



SCALE 0 5 10 FEET

0 1 2 3 4 5 METRES

FIG. 5.

TRENCH XII East section

NORTH

A

Wall rubble

Wall

Rounded chalk chips and stona

Floor of hall

Wall

B

SOUTH

SCALE 0 1 2 3 4 5 FEET

0 1 2 METRES

Floor of hall

A detailed stratigraphic cross-section of the Staxton site, oriented South (A) to North (B). The diagram shows various soil layers and features. A legend on the right identifies five types of material: 1. Light brown marl, 2. Chalk rubble, 3. Chalk scree, 4. Dark brown marl, and 5. Chalk rubble & rainwash. Two specific features are labeled: 'Staxton ware sherds' and 'Staxton ware pottery'. At the bottom, two scale bars are provided: one in feet (0 to 5) and one in metres (0 to 2).

FIG. 7.

by the Staxton type. Incorporated in the wall bonding were both Staxton ware and pimply sherds. The wall must therefore be earlier than *c.* 1220.

Wall 2

Wall 2 straddles the hall foundations as well as Wall 1, and its rubble is associated with unweathered fourteenth-century Staxton ware rims in clean condition suggesting the wall was in ruin by the fourteenth century.

The Pond Wall (Figs. 3 and 5).

The northern end of Wall 2 was bisected by the southern boundary wall of the dew pond which rides over the northern foundations of the hall. This indicates that the pond enclosure post-dates the dwelling and the overlying ruined foundations of later buildings. The function of these footings is not clear, as the rest of the structures have been completely robbed.

The Footings of the Hall (Fig. 5 and Pl. II)

The foundations of the Hall rested upon about two inches of soil placed directly on the natural frost-fractured rock of the area, which had been levelled for the purpose. Investigation of their construction indicated that they had been begun at the northeast corner near the doorway. The slabs of chalk were laid in rows across the wall, at an angle of 30 degrees to the horizontal, the width of the foundations; the mason worked backwards along the entire run of the footings until the west side of the doorway was reached. Here longer slabs of chalk were laid flat to terminate the wall and provide a straight side to the door jambs. There was no evidence of a join at any part in the foundations which would have been the case if two masons had worked separately and linked up. None of the stones showed signs of dressing, other than rough shaping; they were bonded with soil and chalky rainwash. As can be seen from the plan (Fig. 4) the walls formed part of a rectangular dwelling, but the corners were not right angles and are out of true. The west wall inclines to the east and the north wall is shorter than the south.

The Doorway

An interesting feature of the northeast corner of the hall was the shielded entrance, or screen within the doorway (Fig. 5 and Pl. III). This was built of flat chalk blocks, not inclined, and rested on about two inches of soil, next to the scraped natural surface. Due to damage to the eastern side of the doorway and wall, it is not possible to estimate the exact width of the entrance. Although the screen was not still joined to the west side of the doorway at the time of excavation the link between the two was clearly obvious and is indicated on the plan by a dotted line. There were traces of a foundation partly across the doorway, or rather the gap between the eastern wall and the west jamb. This suggests a modification to the entrance when the screen was built (Fig. 5). Immediately to the east of the west jamb the rock floor was smoother and rounded, suggesting considerable trampling. It is thought this indicates two phases of entrance construction.

Phase I. Simple narrow entrance beginning at the terminations of the inclined stones and ending where the foundations ceased on the east side (Fig. 5). No internal screen.

Phase II. Building of surviving west jamb and screen and moving the other jamb eastwards. This would prevent direct draughts blowing through into the interior of the hall particularly when north or northeast winds blew.

The Floor

When the hall was constructed an area roughly 30 ft. by 60 ft. was levelled on the slope of the hill for the floor and foundations, leaving the periglacial frost-fractured rock beneath. During the life of the building little wear occurred on this surface, which was covered with a layer, 2 – 4 ins. thick, of dark, fairly stone-free soil, possibly indicating that an earthen floor had been laid on the rock. Floors of this type still existed and were in use in the Weaverthorpe area in cottages at East Heslerton until 1880. It may well be that the floor was originally covered by turves as was thought to be the case in Hut II of the Iron Age settlement at Staple Howe. Freshly levelled chalk surfaces are very

uneven, rough and uncomfortable to walk and sit on. Use of turves would provide an even and compact earthen surface which would knit together. On and in this deposit were a few more Romano-British potsherds, pimply ware fragments, two iron objects, but no Staxton-type or glazed pot fragments. A bronze coin of Tetrichus was found on the natural close to the southern wall of the hall. No medieval pottery was found in the bonding of the footings, only eroded Romano-British sherds. Just to the east of and beneath Wall 1 were traces of charcoal and wood ash, doubtless the remains of a hearth partly destroyed when the later wall was built.

THE GREAT HALL AND ITS ASSOCIATED BUILDINGS

On the southern side of the excavated area were the remains of a large rectangular dwelling surrounded on the northeast, east, south and west by buildings erected against its walls. Entrance was gained on the northwest and probably also through the rooms on the northeastern and south sides. The external buildings on the west had been damaged when the churchyard was extended by Sir Tatton Sykes during the Church renovations of 1870–71. Due to the limitation of the dig to a specific area it was not possible to find the extent of the external rooms to the south. The total estimated internal length of the hall was 54 ft. and the width 26 ft. Built into the northern and southern walls were heavy blocks of sandstone and chalk at intervals of 10 ft. (Fig. 8). On the northeast side of the north room was a curved and rather irregular wall enclosing the corner, to make a garderobe. Under the southern wall footings was a rubble platform built to compensate for the slope of the hill. On the floor of the centre of the hall was an area of charcoal and small burnt stone, suggesting a hearth. Beneath this, and running eastwards was a shallow and narrow channel associated with a fourteenth-century broken Staxton ware type III cooking pot. Much robbing had taken place but some of the walls stood 18 ins. in height, whereas other sections were completely robbed, or partly so. In all, about 70% of the foundations remained intact, although some of the external structures remained only in part.

The Walls

The walls of the hall were constructed of roughly-faced rectangular chalk blocks bonded with chalky rainwash, or marl in the local traditional manner, in regular courses. Medium to large chalk blocks were laid as an outer face with small stone, not rubble, wedged between the outer facing stones (Pl. II). In only one case did the footings extend beyond the thickness of the wall above; this occurred on the western side (Fig. 8). In this case the first course extended beyond the wall for 4-6 ins., possibly an attempt to strengthen the hall's weakest side, which faced strong westerly winds and contained the northwest doorway. The additional buildings against the wall may well have been added later. The wall thickness varied from about 1 ft. 10 ins. to 2 ft. on the average; except where strengthened to prevent collapse of the wall. In this case an extra facing was added bringing the width to nearly 3 ft. (Fig. 8). At intervals of approximately 10 ft. 6 ins. in the northern and southern walls were stylobates of chalk and sandstone in the form of heavy square blocks built into the outer facing side of the wall (Pls. VII, VIII and IX and Fig. 8). These were intended to take the downward thrust of the heavy vertical timbers supporting the roof. For a distance of 12 ft. on the inside of the northern wall it had been necessary to strengthen the foundation and wall between the 1st and 2nd stylobate to prevent further movement caused by vertical play of the upright timbers within the wall (Pl. VII and Fig. 8).

In one case, the stones surrounding the uprights had survived one course high (Pls. VIII and IX and Fig. 9A) on top of the sandstone plinth. There had originally been four stylobates in the southern wall, although one had been removed as a result of wall robbing. Of the three surviving, two were of sandstone and the third chalk. The base of the last extended beyond the footing for nine inches to the south. Eastwards from it the wall had been thickened for a further 18 ins. The first plinth lay about 12 ft. from the west wall, the second 12 ft. 6 ins. and the fourth was 44 ft. from the west and 10 ft. from the east wall. In the north wall it was only possible to trace three stylobates of sandstone.

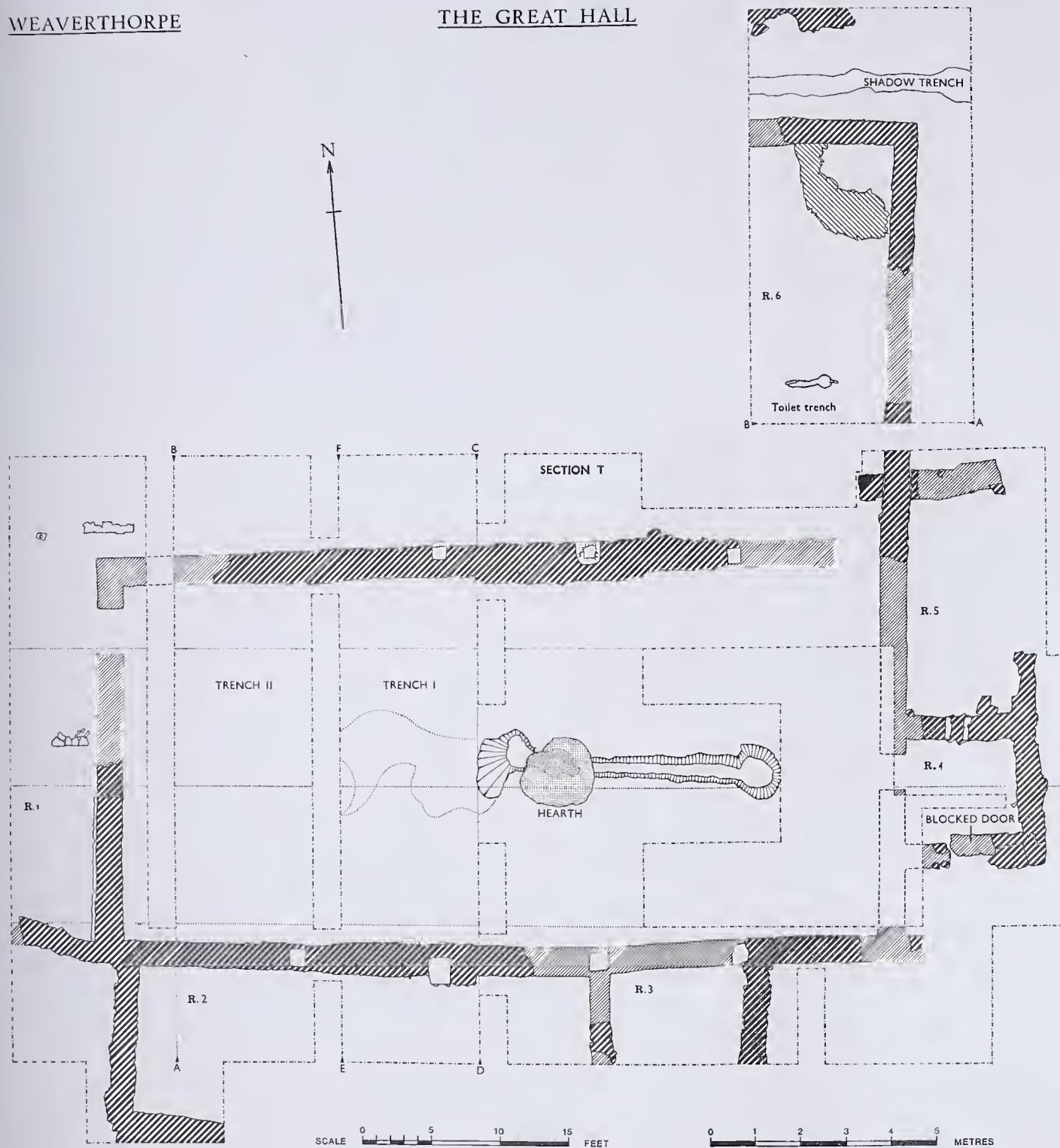


FIG. 8.



PLATE III.

The southeast corner of the Early Hall, showing method of construction and interior screen to doorway.



PLATE IV.

West end of Early Hall showing method of construction (scale 1 foot).

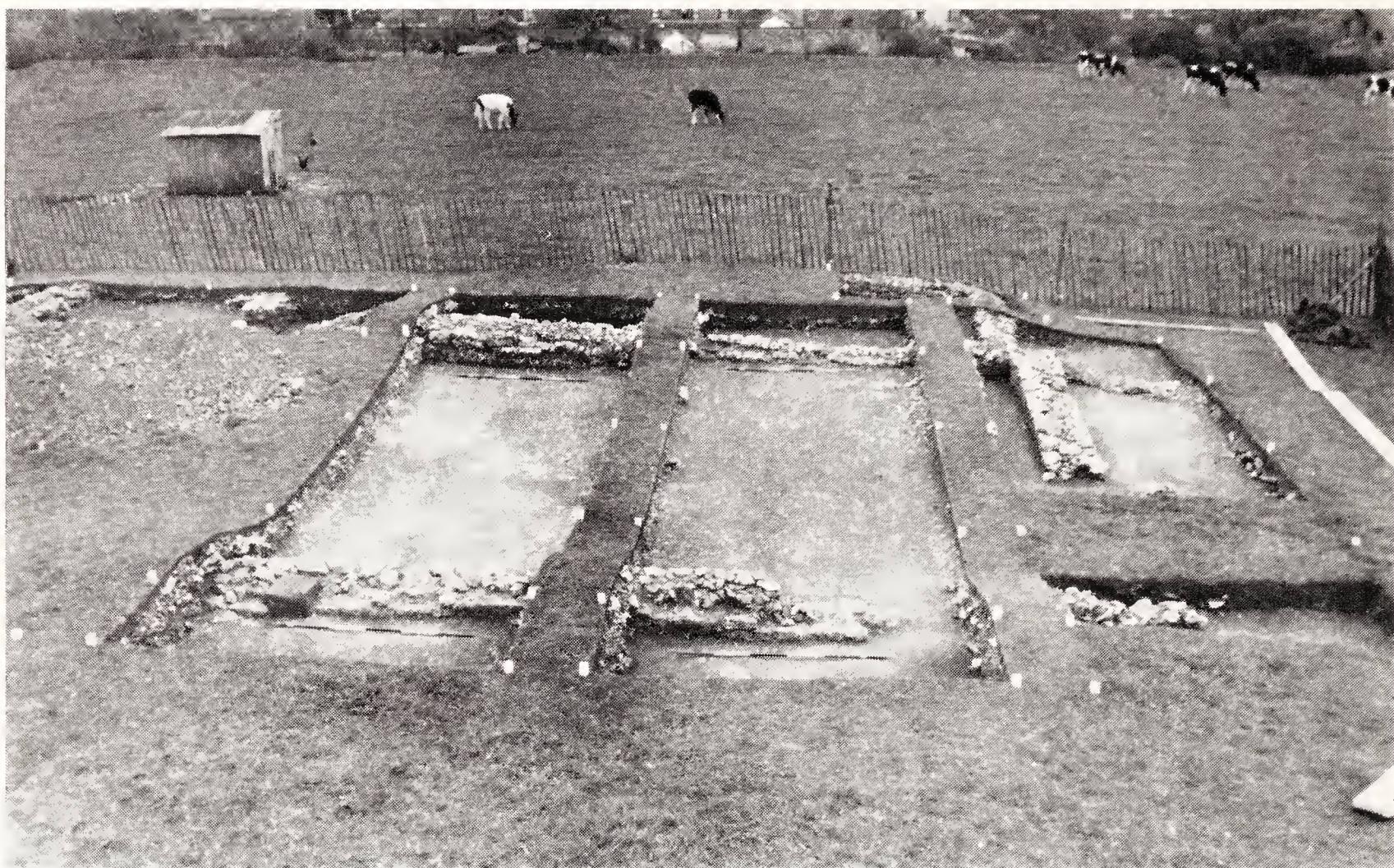


PLATE V.

West end of Great Hall from the north; showing additional buildings (right), (scale in feet).

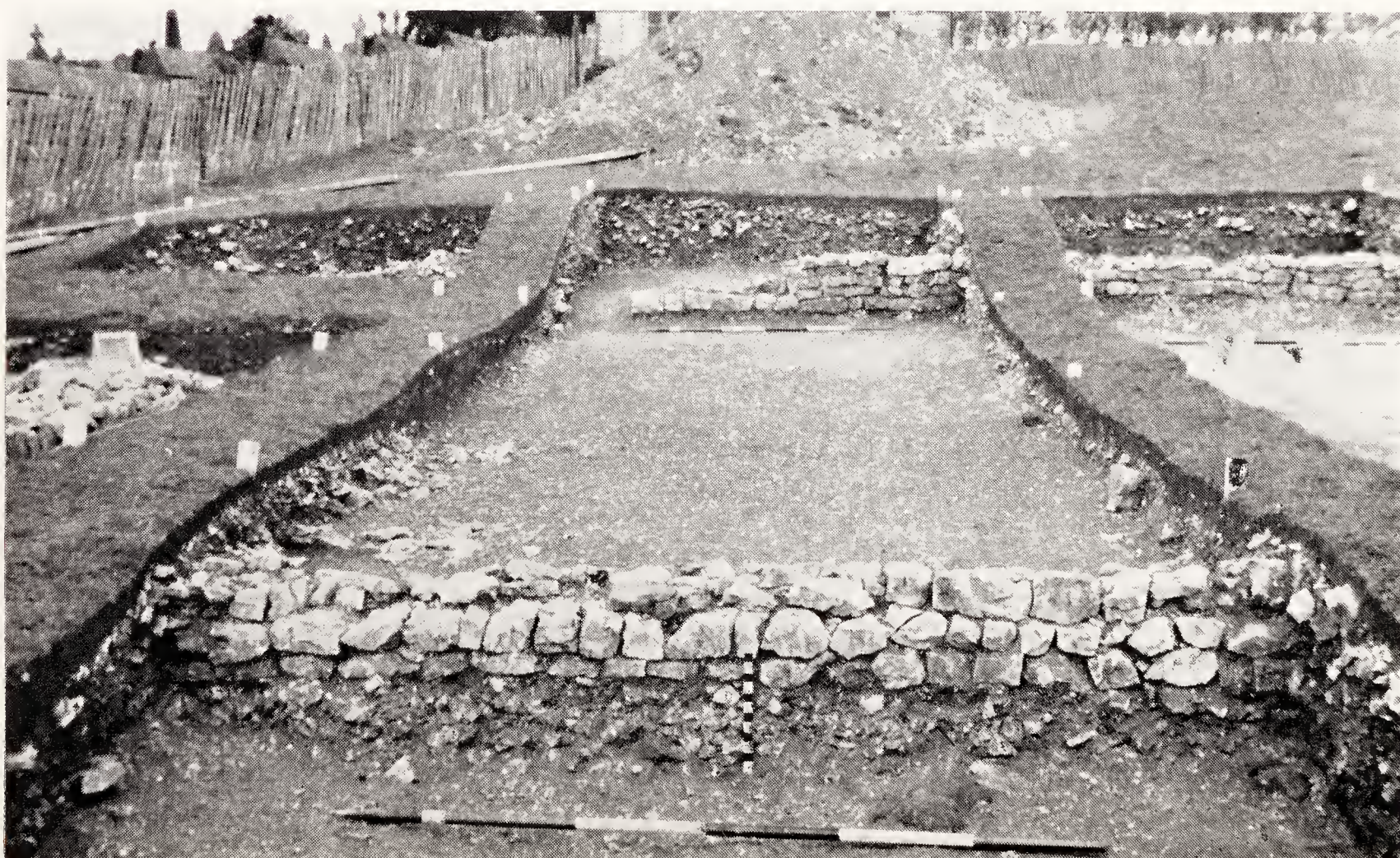


PLATE VI.

West end of Great Hall from the south, showing build-up beneath wall (scale in feet).

The most westerly was missing, although the wall survived not less than one course high where it should have been. Possibly the plinth had been of chalk resting on the footings which were of much heavier chalk blocks than usual. Of the surviving plinths, the first was 10 ft. 6 ins., the second 21 ft., and the third 32 ft. from the eastern wall. Of these the second and third appear to have been made from the base of a sandstone cross. It appears that the upright timbers in the wall were about a foot thick and 27 ft. apart across the span from north to south. Only part of the eastern wall survived, and it apparently continued as the east wall of the northern building. The reconstruction of the east wall is purely conjectural although there were indications of wear on the floor of the building near the northeast corner, which suggested a doorway. This would explain why there were no signs of keying in of the northern and eastern wall.

Rooms and Buildings Directly Associated with the Hall

There were several rooms, six in all, attached to the main building of the hall. With one exception, the northeast, the hall walls provided one side of each building on the west, south and east sides. One of the rooms at least opened directly into the main building during part of the occupation. It is fairly certain that Room 6 also had a doorway leading directly into the hall. The remainder had apparently no direct access to the main structure. Due to the restriction of the excavated area to the south it was not possible to follow the southern walls of Room 2 or probe for doorways.

Room 1

Against the west wall of the hall were the remains of a structure 14 ft. long north-south and of unknown width. The southern wall had clearly been built against the southwest corner of the main building and the stones were not bonded or keyed into its face, but only rested against it. Whether or not the north side was united with the western end of the hall is not known, as both parts had been destroyed. During the nineteenth-century churchyard extension the west end of the room had been destroyed.

Room 2

Close to the southwest corner of the hall were the footings and wall of a room extending along the southern wall. Its width was 12 ft., and as there was no sign of a join, or footings from its corner eastwards to the ruined wall of Room 3, it may well have been about 33 ft. in length. Further excavation towards the south to elucidate this point was not possible.

Room 3

Immediately east of the ruined wall of Room 2 was a small room 9 ft. wide and, possibly like the previous building, 12 ft. north-south.

Room 4

Room 4 must have been attached to the eastern wall of the main building and, although this side was destroyed by wall robbing, its junction with the northern wall was obvious. As can be seen (Fig. 8) there had originally been a doorway in the southern wall which was later blocked. This leaves the only entrance to the room in the last phase through the eastern wall of the hall. There were two upright chalk blocks forming a foot-wide slot in the northern wall (Pl. XI). The exact implication of the feature is difficult to assess, as it is more than a foot off centre. Presumably it was intended to hold a substantial timber upright in the manner of the sandstone stylobates, and it may well have been part of a roof extension of the hall which could well have been a foot out of line. It was noticed that the south wall of Room 4 was keyed into its eastern wall, while the northern wall was added later, possibly a sub-division of Room 5, and creating a building $6\frac{1}{2}$ ft. x 8 ft.

Room 5

Little remains of this building to the north and east, but its dimensions can be roughly estimated as being 15 ft. from north to south and 8 ft. in width in its final form, and probably 21 ft. by 8 ft. prior to the construction of the dividing wall that created Room 4.

It was noticed that the north wall of the room had been added to the east wall of the hall. This indicates that Room 5 was later than the main structure, which also applies to Room 4.

Room 6

Immediately to the northeast of the hall was a fairly substantial room with well-built walls. Its eastern wall was a continuation of the main east wall of the main building. Due to severe robbing the entire west wall and some of the eastern side and part of the north wall had been destroyed. Fortunately there were clear traces of a keyed-in wall just to the west of the eastern stylobate in the north wall of the Hall, indicating that Room 4 was an integral part of the manor Hall in its earliest phase. This room was therefore 23 ft. from north to south and about 15 ft. wide. At the southern end it seems that entrance to the Hall was gained through a shielded entrance (Fig. 8). The short wall terminated in a roughly-faced jamb. The entrance may well have been constructed in this way due to the presence of a privy. This interesting feature of Room 4 was located in the northeastern end of the building and took the form of a semi-circular wall added to the corner and creating a three sided pit, one carved and the other two forming a right angle. The Weaverthorpe garderobe was badly robbed and did not survive to its original height as did one of the two located at Sherburn Manor, dating from the thirteenth or fourteenth centuries. Whereas there were clear traces of the brownish russet staining of the type recorded at Sherburn there was little wear on the inner facing stones due to scraping tools during cleaning out and chemical action of its contents, which was very apparent at the former site. Staining of the type found at Sherburn and Weaverthorpe can be seen on the chalk floors and lower walls of abandoned cow byres. There were several small flat Staxton-ware sherds close to the west wall of the pit, and this was also the case at Sherburn.¹ In the remainder of the room were scattered wood ash, hearth stones and animal bones, in greater proportion than elsewhere, and suggesting a kitchen. This seems unlikely due to the presence of the undoubtedly odorous cess pit of the privy.

Floor, Hearth and Channel

Towards the eastern side of the Hall, and roughly in the centre, were considerable traces of wood ash and fire-reddened fragments of chalk and a few small pieces of fire shattered glacial erratics: apparently a hearth damaged by robbing (Fig. 8). These deposits rested upon the soil which covered the floor and overlay a channel and pit system associated with the remains of a Type III Staxton ware vessel. The purpose of the channel system is not clear, but it may well have been a simple soakaway drainage system to absorb rainwater from the smoke-hole in the roof. As can be seen, it is linked with the dark stain which runs through the lower central portion of the floor.

The Floor

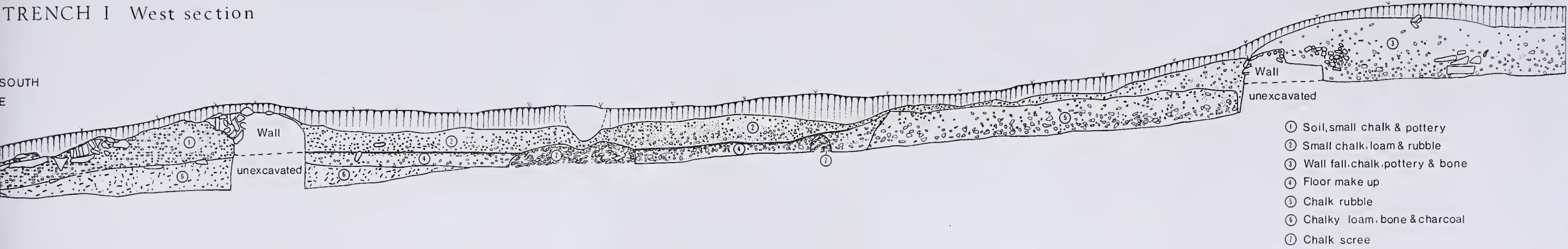
The floor was covered with a fine layer of soil suggesting a similar flooring to the Early Hall. In this case there was far more disturbance by wall robbing and much wall-fall lay on its surface. Both the floor and the débris were associated with potsherds, chiefly ewer fragments and Staxton ware sherds.

The Entrances

Along the entire perimeter of the hall and its associated buildings only one doorway survived intact, due entirely to it being blocked prior to the abandonment of the manor in the fourteenth century. Doorways constructed of unmortared chalk are particularly subject to robbing as they can so easily be pulled down. The blocked doorway was 3 ft. in width from jamb to jamb. There were indications of wear on the floor at the northwest and northeast corners of the Hall. In the case of the latter the east jamb survived intact (Fig. 8) suggesting a back-set or shielded entrance to Room 6. In the final phase of the manor building there must have been a doorway to permit access to Room 4, which was blocked off on all other sides. The main entrance to the hall must have been on the northwest side. Here there was evidence of trampling and smoothing of the rock and no

¹ It has been suggested by Mr. J. Musty that broken fragments of pottery were used as well as grass and moss in medieval times in lieu of modern toilet requisites.

TRENCH I West section



TRENCH I East section

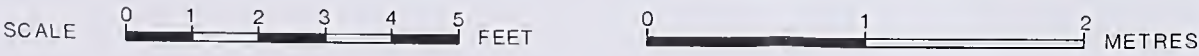
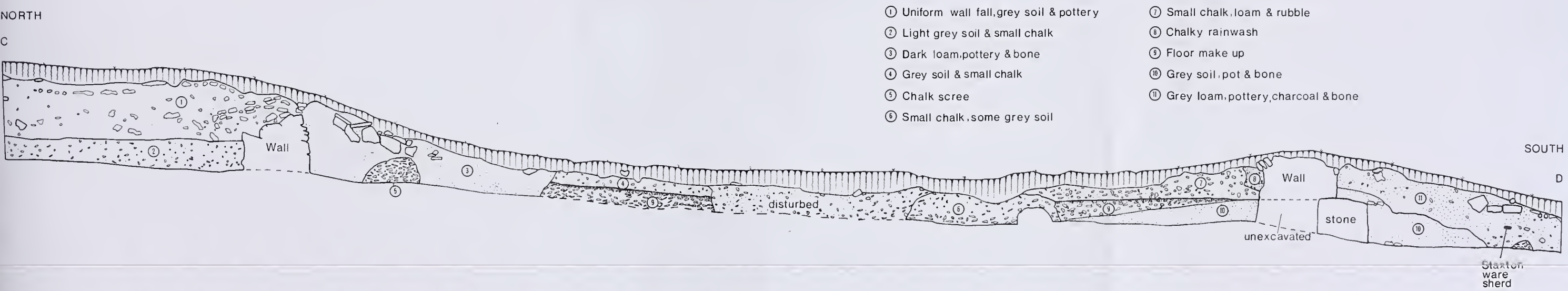


FIG. 9A For locations, see Plan (Fig. 8).

WEAVERTHORPE

THE GREAT HALL

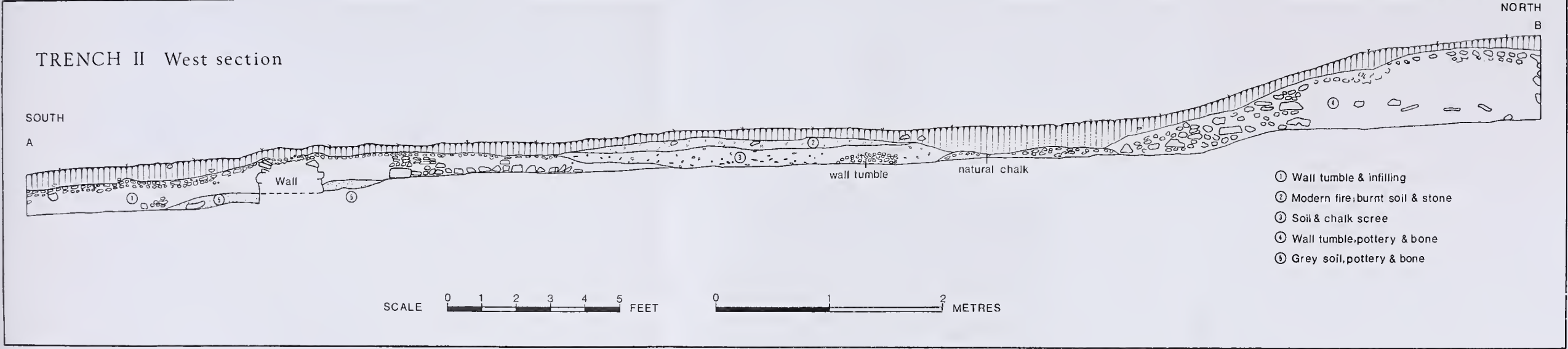


FIG. 9b.

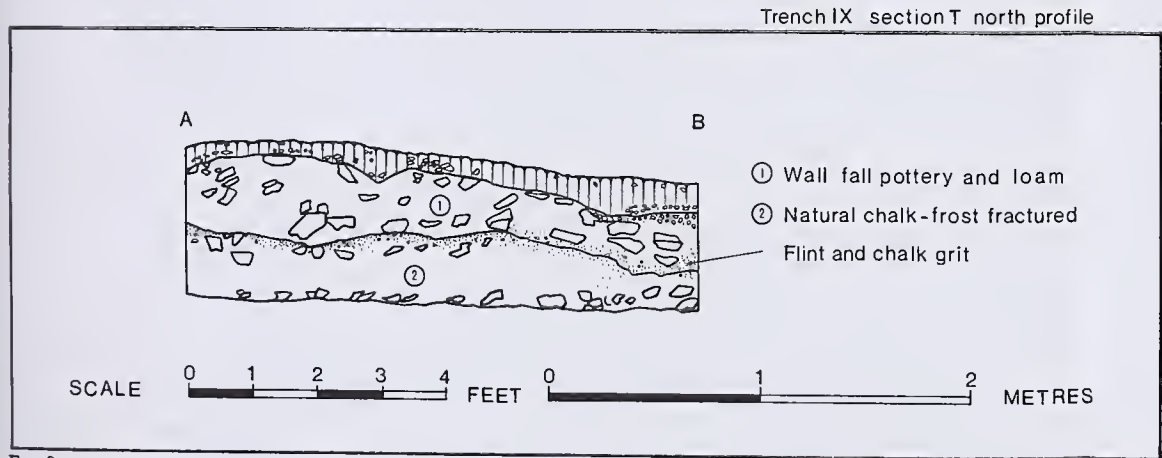


FIG. 9c.

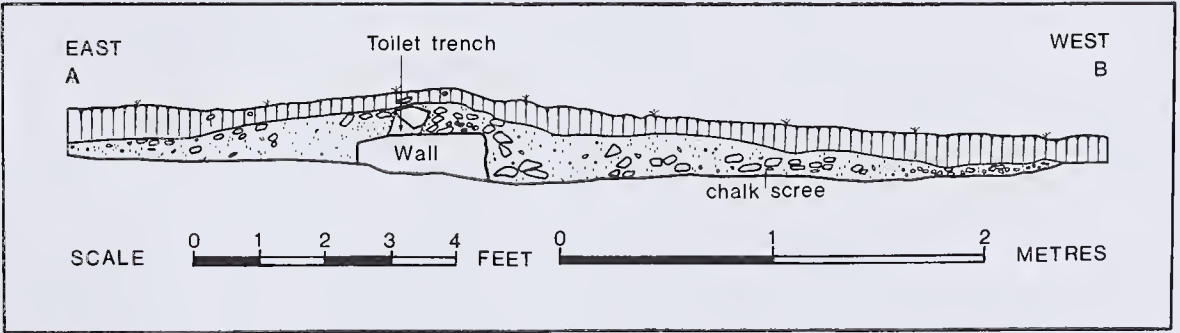


FIG. 9d.

The Great Hall: Sections (see Plan, Fig. 8).



PLATE VII. Central part of north wall of Great Hall, showing sandstone plinth and extra outer skin added to strengthen wall. View from east (scale 1 foot).

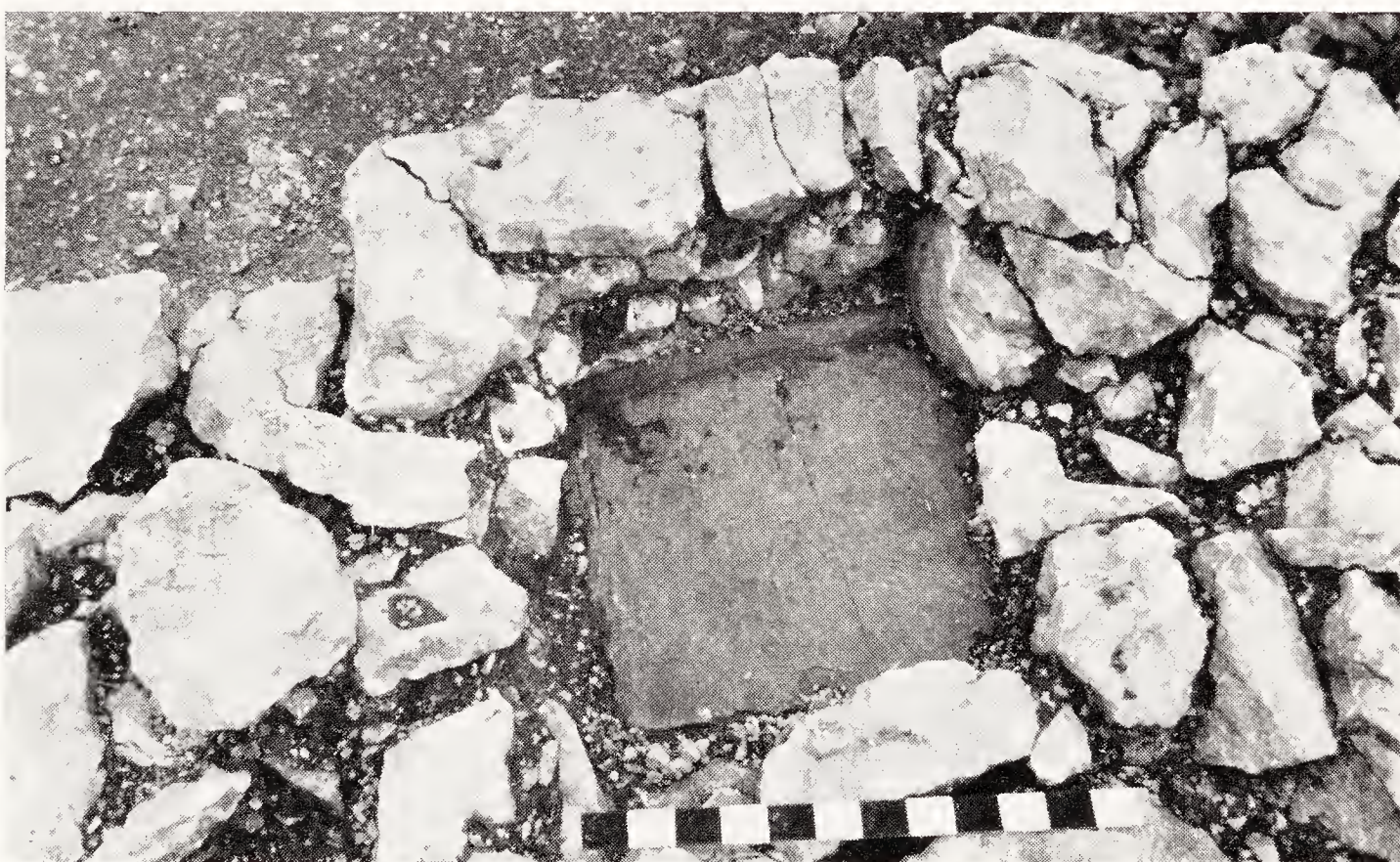


PLATE VIII. Central part of north wall of Great Hall, showing sandstone stylobate above surrounded by part of walling (scale 1 foot).



PLATE IX. Side view of stylobate (Pl. VIII) resting upon the peri-glacial natural and topped by part of original wall (scale 1 foot).



PLATE X.
Remains of Kitchen area of Great Hall with garderobe from the north (scale in feet).



PLATE XI.
East end of Great Hall. Slot for heavy timber with upright chalk wedges (scale 1 foot).

covering of soil. A stone hinge socket was found nearby, probably disturbed by Sykes' workmen in 1871. The débris from the west wall and the presumed doorway was associated with modern pottery, and was obviously a nineteenth-century disturbance.

The Pond

North of the Early Hall (Pl. II and Figs. 3 and 4) was an oval hollow about 80 ft. by 30 ft. bounded on the north by the ditch bank and by the slope of the hill from which the northern side had been quarried; it was apparently originally enclosed by a wall on the south, east and west. A trial trench was cut across the hollow from north to south, yielding nothing more than the natural bottom of chalk covered by dark grey-black loam normal to abandoned dew ponds and meres on the Wolds. The southern side of the enclosing wall straddled the north wall of the Early Hall, cut into the two footings that overlay it (p. 121 above). This clearly indicates that the pond, or at least its enclosing wall, dates to the fourteenth century or later. Such a wall with an entrance would limit access to the pond and hinder fouling by animals and prevent the pond's seal being broken. The nearest supply of water to the manor, unless a well and dewpond were used, would be in the valley bottom beside the village street 200 yards away down the hill.

The Road

This feature was first observed on the air photograph (Pl. I and Fig. 3), and was later located by excavation as a fairly level trample-worn surface 8 ft. wide, without visible evidence of ruts. It was clearly defined on the ground from the eastern wall of the 1959 churchyard to 100 ft. east beyond the excavated area. Any westward continuation would go straight through the nave, chancel and tower of the church. The road in all probability existed prior to the church, as is suggested elsewhere, and continued in use throughout the twelfth, thirteenth and fourteenth centuries. Certainly the Early Hall was to the north of it and no walls or ditches cut across the track, which showed considerable wear.

Minor Walls

Fragments of several walls occurred beyond the limits of the larger and later Hall; these probably represent out-buildings of the manor-house, as all were associated with pottery of the same period. One had been constructed upon the Romano-British pit. The severe robbing of this wall and the others was doubtless caused by the demand for building blocks, which could be more easily robbed from soil bonded walls, than quarried from the chalk.

III. A BRIEF HISTORY OF WEAVERTHORPE MANOR AND CHURCH

A first known occupation of Weaverthorpe manor site dates to the third and fourth centuries, A.D. Romano-British hard grey and Knapton ware potsherds occurred in eroded condition throughout the excavated area. A pit of the same period (Fig. 3), and a coin of Tetrachus was also found to the north of the Great Hall.

No artifact or coin of any period after the fourth century A.D. and prior to the tenth century was located by excavation. The only evidence of pre-Manor settlement on the site was the discovery of Stamford ware sherds from a shallow hollow south of the medieval road close to the 1871-72 churchyard wall. It may well be the sleeper trench stains beneath Room 6 of the thirteenth-fourteenth century Hall represent pre-Conquest structures (Fig. 8). As the 1960 excavation was confined to part of the northwest side of the manor earthworks (Fig. 3), it may well be earlier structures lie outside this zone.

The post-Conquest history of the church and manor have been subject to considerable study by J. Bilson, F.S.A., and Miss Ravena Ravens. The former published his thesis on the church and its founder in *Archaeologia* Vol. 72, 1921-22. His chief hypothesis suggested that Herbert of Winchester, chamberlain to Henry I, became owner of the

Immediately prior to the Conquest the manor of Weaverthorpe was held by Archbishop Ealdred. During 1066 it came into the hands of Thomas of Bayeux, a nominee of Odo, the Conqueror's half-brother. Later in the twelfth century it is recorded in the feoffment made by Thomas of Bayeux's nephew, Thomas II, Archbishop of York, that Herbert of Winchester, chamberlain to Henry I, had obtained from Thomas II, who was in financial difficulties while resident at Winchester, the Manor of Weaverthorpe with Helperthorpe, Londesborough with Towthorpe, Huttons Ambo, 1 carucate in Thirkleby, 3 carucates in Birdsall, 5 carucates in Mowthorpe, 4 carucates in Croom, northeast of Sledmere, Cowlam church and $\frac{1}{2}$ carucate of land and 1 carucate in Ulkiltorp, a lost hamlet, and property in Beverley and York, in addition to lands outside the county. This feoffment dates to the period of Thomas II, 1108–1114. Therefore, Weaverthorpe was in possession of Herbert of Winchester and his sons by this date. This documentary evidence is further borne out by the inscribed sundial over the southern door of the church, recording that Herbert of Winchester built the church of St. Andrew. The building of the church and the improvement of the lands acquired could then have begun. Weaverthorpe and the villages of the northern Wold suffered very severely in William's harrying of the North in 1069 and much of the previous arable land became waste, and the area greatly depopulated. This waste land must not be confused with the vast areas of the Wolds which remained in the main uncultivated until Enclosure and served as rough pasture for sheep. Some idea of the devastation can be assessed by comparing the value of the area under Edward the Confessor and William. The Toreshau Hundred T.R.W. value is 1.6% and the Burton Hundred 4% of the T.R.E. according to Bilson and the V.C.H. data.

Further documentary evidence suggests that Herbert of Winchester gave the manor and church of Weaverthorpe to his sons, William the Treasurer and Herbert fitz Herbert prior to his death in 1130. William presented the church to Nostell Priory and the grant was confirmed by Archbishop Thurston about 1114–21. Henry I's confirmation of this gift was attested by Thurston and William de Tancarville who died in 1129. Finally William the Treasurer confirmed the gift when he became Archbishop of York in 1142. William died in 1154 and was canonised in 1226. From about 1121 Herbert fitz Herbert and his male dependants held the manor until the death of Matthew fitz Herbert in 1356 and it is to them the Early and Large Hall must be attributed. An attempt is made in the table below to equate the two structures with the various descendants of Herbert; the difficulty being to produce an accurate table of descent. The archeological dating is purely on ceramic grounds and is based upon the suggested dating of Staxton ware and the cessation of use of pimply ware and northern gritted ware, in an area dominated by the Staxton ware kilns. It is estimated that Staxton ware superseded these early types of pottery by the first few years of the thirteenth century, and certainly by 1220 on the northern Wolds and as far west as Wharram Percy.

<i>Date of mention or death.</i>	<i>Owners of Manor.</i>	<i>Associated Buildings.</i>
1108–1114	Herbert of Winchester	Church
1154 d.	William the Treasurer 1154	
1148	and Herbert fitz Herbert 1148	
1155	Herbert fitz Herbert II 1155	
1166	Robert fitz Herbert 1166	
1212	Peter fitz Herbert 1212	
1220	Reginald fitz Peter 1220	Large Hall
1260 ?	John fitz Reginald	
1305 ?	Herbert fitz John	
1356 d.	Matthew fitz Herbert 1356	

IV. THE FINDS

1. POTTERY

Romano-British Pottery

The Romano-British sherds excavated from the pit in Tr. xxii (Fig. 4) were the only examples in a sealed deposit, the remainder recovered in the open areas of the manor, in association with the Early Hall.¹ These latter examples were eroded, not fresh, due to weathering and must represent an occupation disturbed by the building and levelling for the Early Hall where a coin of Tetrichus occurred close to the medieval wall.

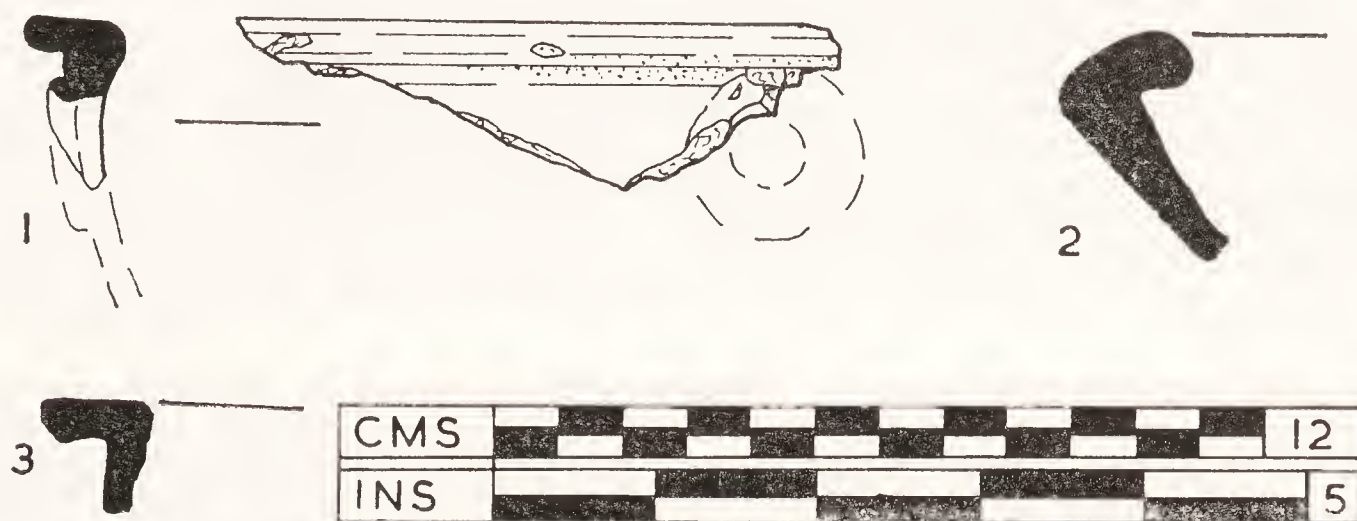


FIG. 10. Stamford ware.

Stamford Ware from Pit, Trench XII (Fig. 10).

All the examples in this series came from the shallow hollow in sections B2 and O3 close to the 1959 churchyard wall and just south of the medieval road which had remained undisturbed by later works.

(Fig. 10, 1-3)

1. Rim fragments of bowl. Creamy buff to pink fabric with little grit. B2. (7) 29/7/71. Diameter c. 7 ins.
2. Inturned rim of bowl. Dull red to black fabric with fine grit. Section B2. (2) 28/7/60. Diameter c. 10 ins.
3. Bowl rim. Creamy buff fabric. Similar to 1. Section B2. (5) 29/7/60. Diameter c. 7 ins.

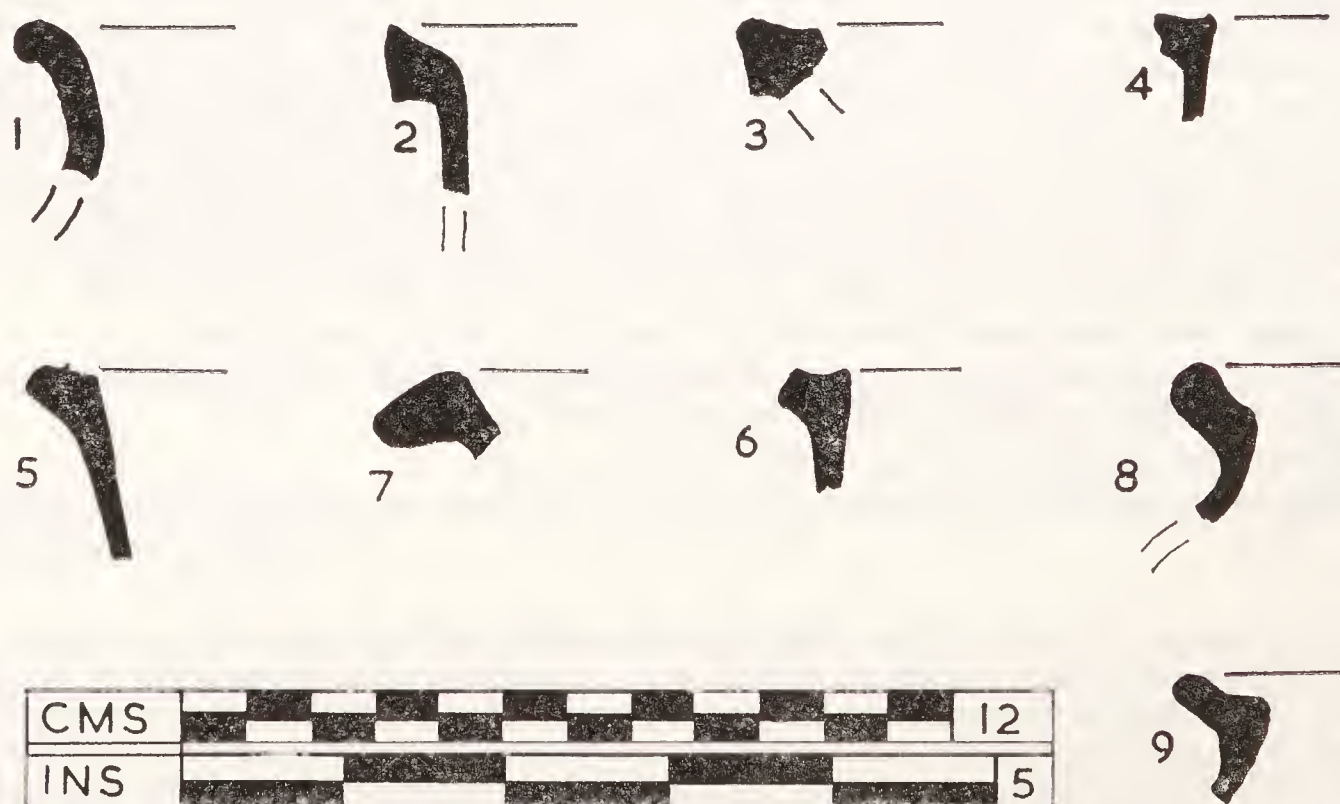


FIG. 11. Pimply or Northern gritted ware.

¹ Finds were recorded in trench, section and find order of the day. The grid was not superimposed on the plans, to avoid confusion. The grid key is lodged with the pottery in Bridlington museum.

Northern Gritted Ware (Pustular or Pimply Ware) (Fig. 11)

Pottery in this class belongs to the immediately post-Conquest (11th and 12th centuries) period in the Weaverthorpe area, the northern Wolds and the Vale of Pickering, and was entirely superseded by Staxton ware, produced at the kiln sites of Staxton and Potter Brompton, early in the thirteenth century.¹ Examples were recovered from the old land surface beneath the bank of the earthwork, the Early Hall and the rubble base of the southern wall of the Great Hall (Fig. 12). A few disturbed stray fragments came from the site in general.

(Fig. 11, 1-9)

1. From southern rubble foundations of Great Hall. Section A. (12) 25/4/60.
2. Below wallfall of Great Hall. Section V. (7) 27/7/60.
3. From southern rubble foundation of Great Hall. Section A. (4) 25/4/60.
4. From southern rubble foundation of Great Hall. Section A. (8) 25/4/60.
5. From southern rubble foundation of Great Hall. Section A. (13) 25/4/60.
6. From southern rubble foundation of Great Hall. Section A. (1) 24/4/60.
7. From southern rubble foundation of Great Hall. Section V. (3) 15/8/60.
8. Floor of Early Hall. Section W2. (3) 12/8/60.
9. Wallfall of Early Hall. Section G2. (2) 9/8/60.

Staxton Coarse Ware

Staxton ware fragments occurred in not inconsiderable numbers in the thirteenth and fourteenth-century sections of the manor, in particular the floor and wallfall of the Great Hall, and to a lesser extent the rubble of the Early Hall. During the thirteenth and fourteenth centuries Staxton forms were virtually the only coarse ware products used in the Vale of Pickering, as far west from the coast as Pickering, and over the entire wolds north of North Dalton, and the northern part of Holderness from east of Lund to the sea. So far the only kilns producing the series, located to date, have been excavated at Potter Brompton and Staxton situated on the southern side of the Vale of Pickering.² Sherds of the Staxton products are extremely common in the area mentioned and are scattered everywhere in gardens and fields around and in its old villages and settlements. The concentration of Staxton ware at Weaverthorpe in the thirteenth and fourteenth centuries is thus normal.

Glazed Pottery

Light and dark green glazed sherds, the remains of jugs, occurred in the usual proportions to coarse ware on manor and habitation sites at Sherburn, Staxton and Knapton nearby. Most seem to be products of the Scarborough kilns, which is to be expected. Glazed sherds come chiefly from the wallfall of the Great and Early halls but three examples were located on the floor of the former.

Pottery from the Great Hall

This series forms an interesting and informative group. It is through the pottery that the structural phases and destruction of the Great Hall can be reasonably dated, if the dating of the various phases and development of the Staxton ware types can be taken as valid, and this in the main is not in doubt. Staxton ware sherds occurred in the rubble associated with the construction of the undercroft at Wharram Percy, which was dated to about 1198. Generally there is every indication from other sites and the kilns that Staxton ware came into general use in the Weaverthorpe area by not later than the first decade of the thirteenth century and pimply and gritted ware was ousted. During the thirteenth and fourteenth centuries the use of Staxton ware was universal; production appears to have ceased entirely by about 1400. These phases and factors provided an interesting series of ceramic horizons invaluable in providing some form of dating, as there are no known direct documentary references to either halls.

There appear to be three main phases of the Great Hall. They are as follows.

A. The levelling of the slope by excavation and building up of the southern side by the use of debris and rubble to provide a level platform for the hall and foundations.

B. The occupation of the hall and its floor.

C. The final occupation and robbing of the walls. These three phases can be clearly linked with the pottery.

Phase A

Beneath the southern wall (Pl. VI and Fig. 8) the slope of the hill had been built up with chalk rubble, soil and debris from an earlier occupation of the area. Associated with this material were pimply ware rim and body sherds and no Staxton ware, or glazed pottery (Fig. 12), thereby clearly indicating that the hall had been built after about 1200-1220, otherwise Staxton ware would have been associated with the debris and rubble used as levelling material. In the chalky rainwash bonding of the southern wall was a single sherd of an early type Staxton ware rim. This clearly indicates pre-Staxton ware debris was used as levelling material and the wall was constructed after Staxton ware came into general use in the area in the early part of the thirteenth century.

¹ *Y.A.J.*, 39 (1957) 445-6.

² *Ibid.*

Phase B

On and in the floor of the hall were located one pimply ware rim, twenty-seven thirteenth-century Staxton ware rims, one fourteenth-century Staxton ware rim and three fragments of green glazed jugs. The preponderance of thirteenth-century material clearly indicates a main occupation immediately after the construction of the hall.

Phase C

In the débris and wall fall of the building were recorded five thirteenth-century and fourteenth-century Staxton ware rims and nine glazed sherds. This means that the building was in ruins by the fourteenth century and the walls had been robbed. No later débris was located either in or on this wallfall. Fragments of modern tiles, pottery and brick roofing fragments occurred in the upper four inches of dark humus. The fourteenth-century pottery must have come from a nearby building, as it was certainly not on the floor of the Great Hall, although pottery of this period occurred on the remains of the floor and entrance to Room 6.

The ceramic evidence clearly indicates that the hall was built early in the thirteenth century, occupied during the same century and was in ruin by about the first half of the fourteenth century and the walls robbed, possibly to construct another building nearby. This date seems to coincide with the death of Matthew fitz Herbert in 1356, after which the property passed out of the hands of the male descendants of Herbert of Winchester.

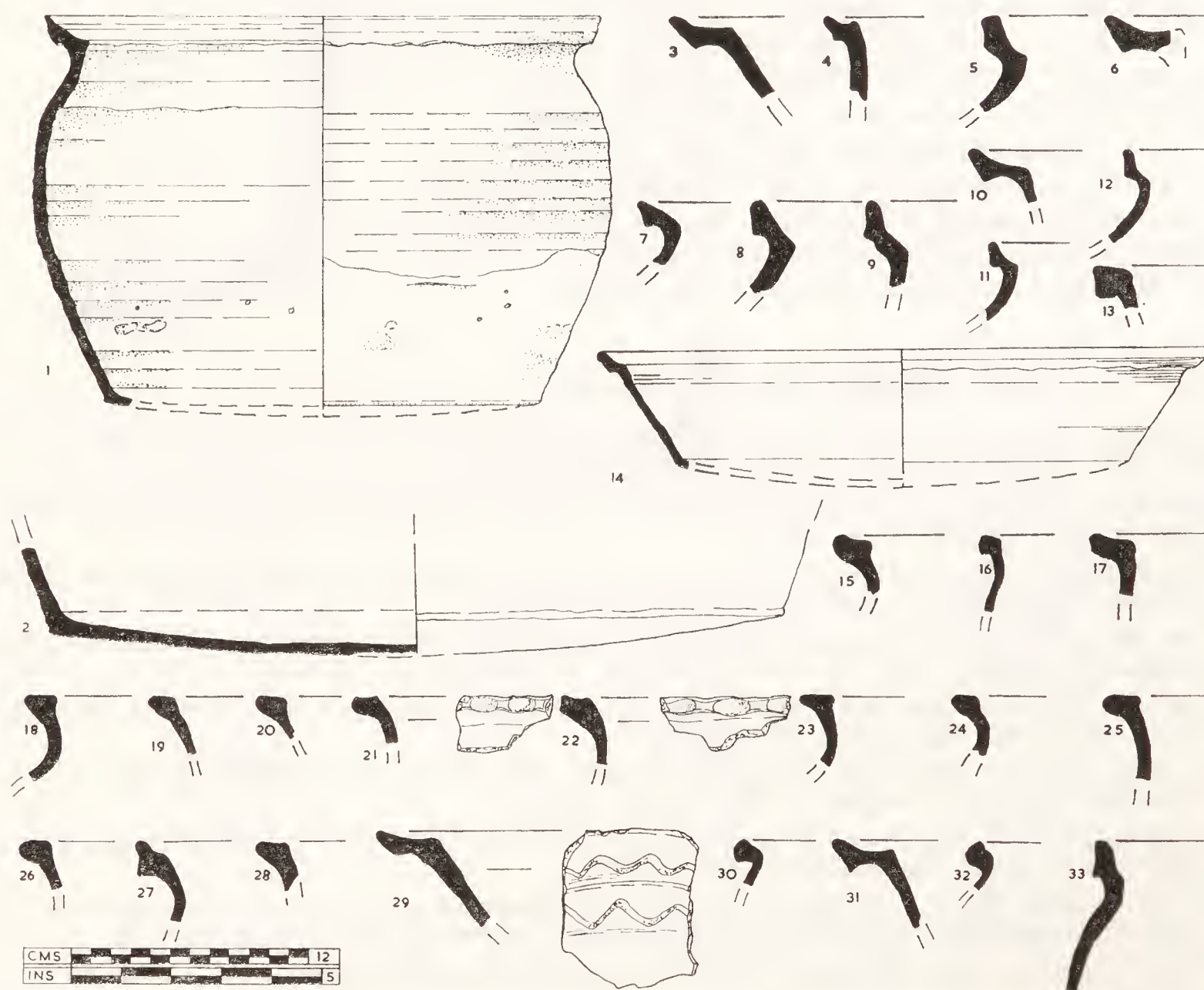


FIG. 12. Staxton ware.

Staxton Ware, Great and Early Hall (Fig. 12).

1. Kitchen Area, Great Hall. Garderobe Floor. Section G2. (5) 4/8/60. Type IV.
2. Drainage Pit? Great Hall. Section Q2. (7) 29/8/60. Type II.
3. Wallfall, Great Hall. Section N. (3) 26/4/60. Type I.
4. Wallfall, Great Hall. Section M. (15) 25/4/60.
5. Wallfall, Great Hall. Section H. (10) 25/4/60.
6. Wallfall, Great Hall. Section D. (1) 25/4/60.

7. Wallfall, Great Hall. Section L. (7) 26/4/60.
8. Wallfall, Great Hall. Section Q. (7) 28/4/60. Type II.
9. Wallfall, Great Hall. Section D. (4) 22/4/60.
10. Wallfall, Great Hall. Section Q. (6) 28/4/60.
11. Wallfall, Great Hall. Section T. (1) 27/7/60.
12. Wallfall, Great Hall. Section P. (11) 28/4/60.
13. Wallfall, Great Hall. Section N. (5) 28/4/60.
14. Wallfall, Great Hall. Section Q. (12) 28/4/60 and (10) 28/4/60. Type III.
15. Wallfall, Great Hall. Section O. (3) 28/4/60.
16. Wallfall, Great Hall. Section U. (1) 26/7/60.
17. Wallfall, Great Hall. Section M. (17) 26/4/60.
18. On rubble build up from southern foundations of Great Hall, Section A. (7) 22/4/60. Type IV.
19. Floor of Great Hall. Section A. (9) 22/4/60.
20. Floor of Great Hall. Section A. (10) 22/4/60.
21. Floor of Great Hall. Section E. (14) 25/4/60.
22. Floor of Great Hall. Section F. (8) 22/4/60.
23. Floor of Great Hall. Section D. (2) 26/8/60.
24. Above Floor, but below Wallfall of Great Hall. Section O. (2) 28/4/60.
25. Above floor, but below Wallfall of Great Hall. Section E. (11) 25/4/60.
26. Above floor, but below Wallfall of Great Hall. Section E. (7) 25/4/60.
27. Above floor, but below Wallfall of Great Hall. Section A. (2) 19/4/60.
28. Below Wallfall of Great Hall. Section E. (3) 19/4/60.
29. Above Wallfall of Great Hall. Section D. (11) 22/4/60. Type I.
30. Loam above Wallfall of Great Hall. Section T. (1) 27/7/60.
31. Loam above Wallfall of Great Hall. Section D. (2) 22/4/60. Type I.
32. Floor of Early Hall. Section W2. (3) 12/8/60.
33. In Wallfall of Early Hall. Section T2. (10) 9/8/60.

Glazed Pottery and Jugs. Wallfall of Great Hall (Fig. 13).

1. Jug base. Fine smooth hard bisque with light pink inner and outer surfaces and light grey core. No glaze. Section D. Ext. A. (5) 22/4/60 and (3) 22/4/60.
2. Jug base. Fine hard bisque with somewhat pitted surface. Dull pink on outside core and interior light dull grey. Section Q (1) 28/4/60.
3. Jug base. Fine hard bisque with some grits. Dull pink on both surfaces and grey core. Patches of light green gloss on bottom. Section F. (13) 28/4/60.
4. Jug base. Fine hard bisque with some grit. Light dull red outside with some purple tones which suggest oven firing. Dull grey core and interior. Section L. (10) 26/4/60.
5. Jug rim. Fine dull light pink bisque with small pits c. .5mm. in depth. Traces of light yellow gloss on handle stump. Section R. (16) 28/4/60.
6. Jug rim. Fine smooth bisque. Light buff to white with pink tones. Mottled apple green gloss on top of handle stump. Section H. Ext. A. (2) 25/4/60.
7. Wall fragment of Jug. Dull light green glaze with comb décor. Fine hard bisque with some grit. Pink interior, grey core. Section L. (6) 26/4/60.
8. Wall fragment of jug. Light green glaze with comb décor. Hard bisque with some grit. Grey core with dull pink interior suggesting the jug was fired upright. Section P. (14) 28/4/60.
9. Wall fragment of jug. Similar in fabric to 8. Possibly part of the same vessel. Section P. (13) 28/4/60.
10. Floor of Great Hall. Wall fragment of jug with applied strap in dark green to grey glaze; remainder apple green. Light creamy buff with fine grits. Section A. (6) 22/4/60.
11. Rim of jug with part of face mark handle traceable below rim. Smooth dull pink interior and core. Dark olive green glaze of Scarborough type. The glaze had run down to the lip of the rim, during firing indicating the jug had been inverted in the kiln. Trench XII. (3) 29/8/60.

2. OBJECTS OF LEAD

A small fragment of folded lead 3 ins. by 4 ins. was located at a depth of 1 ft. 4 ins., in Trench XII A2 (1) 30/7/60 but has not been illustrated.

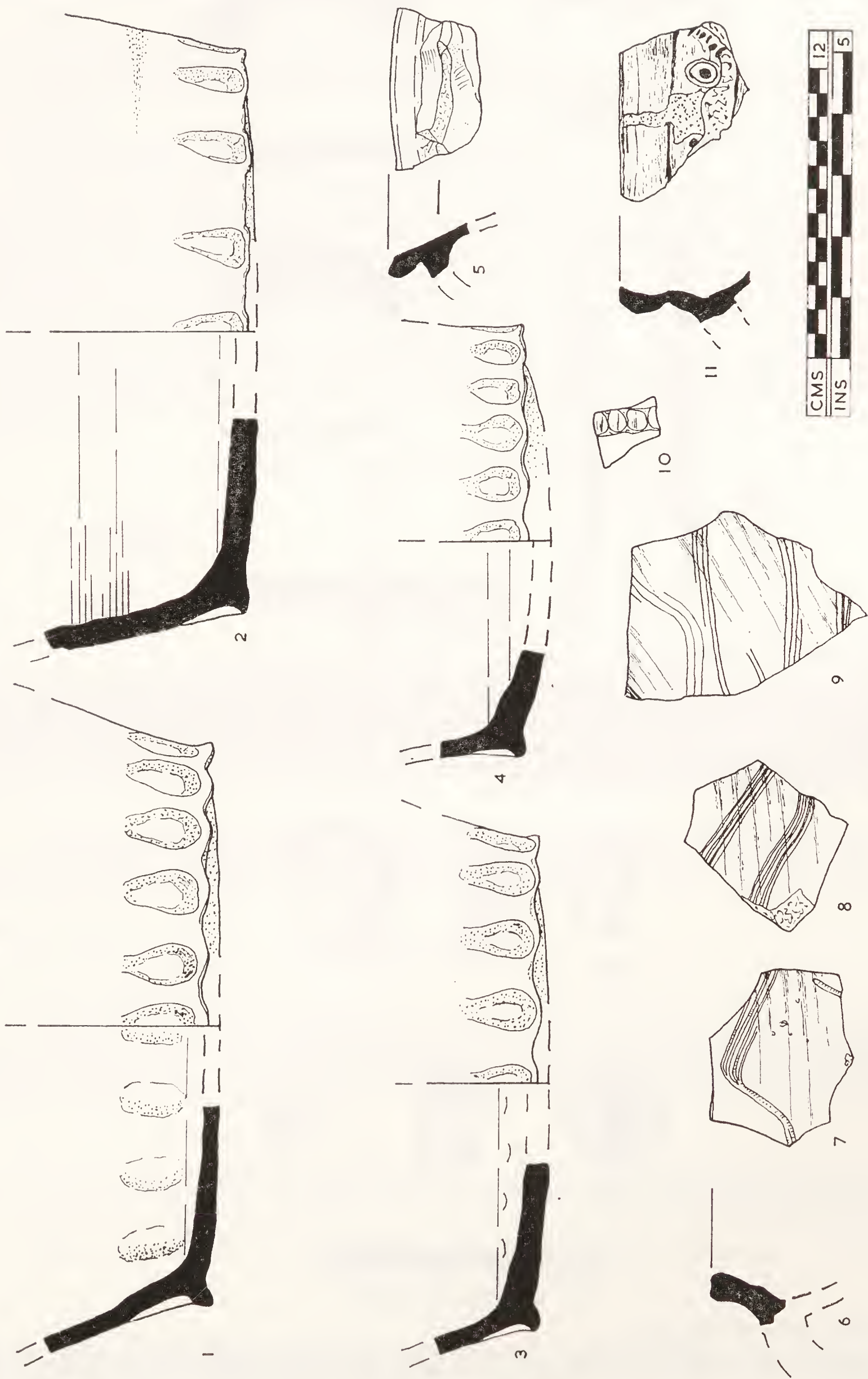


FIG. 13. Glazed pottery.

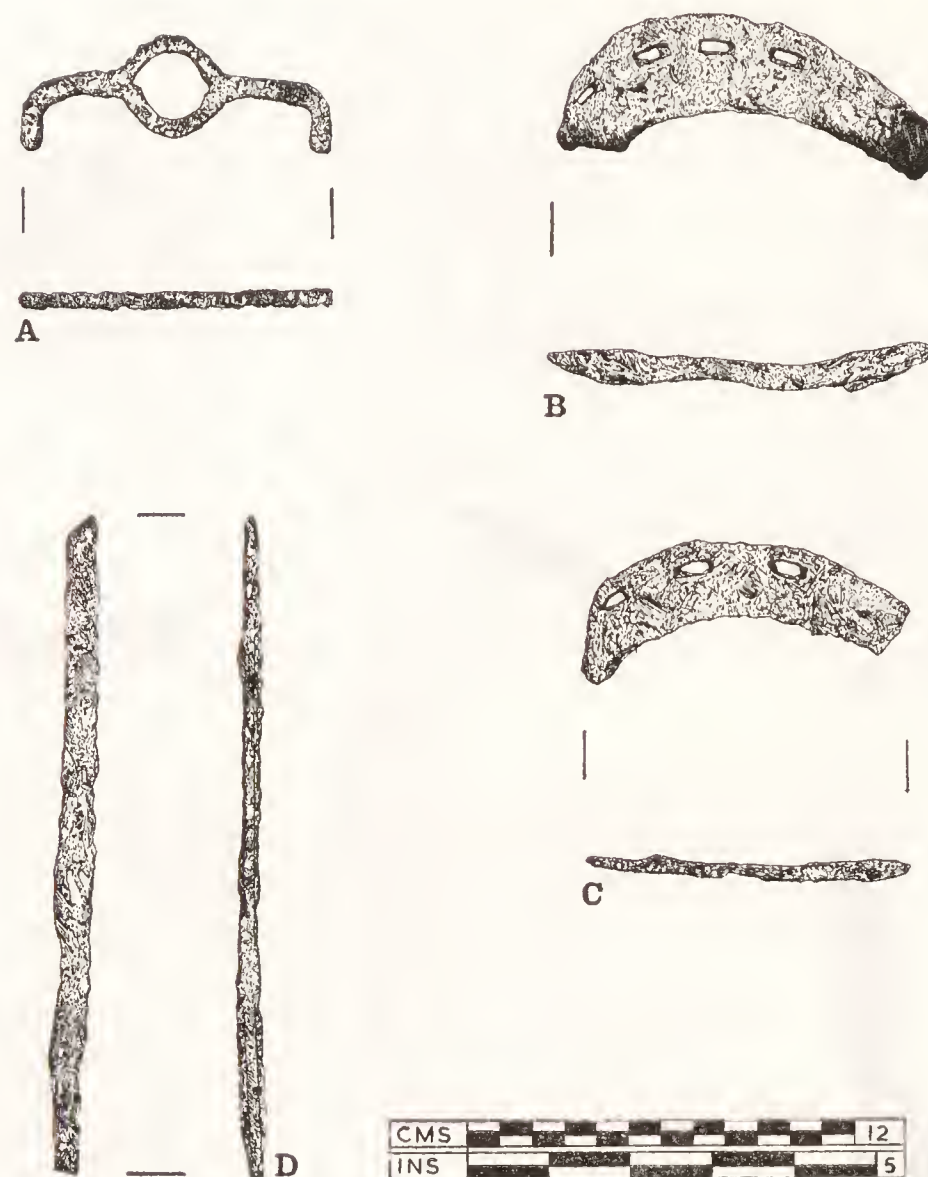


FIG. 14. Objects of Iron.

3. OBJECTS OF IRON (Fig. 14)

Several iron objects occurred in the Great and Early Hall and other parts of the site. The most interesting being a fragmentary ox goad, not illustrated, Tr. XIII K2, (4) 3/8/60 located, in the rubble of the kitchen area. A blade, Fig. 14D, was recovered from the floor of the Great Hall, close to the wall Tr. III, J. (5) 25/4/60. Two fragmentary horse-shoes Fig. 14B and C occurred in the rubble of the Early Hall, Tr. XII F2 (6) 9/8/60, and F2 (9) 9/8/60. On the floor of the Early Hall was the looped object, probably a modern intrusion Tr. XII (5) 9/8/60, Fig. 14A.

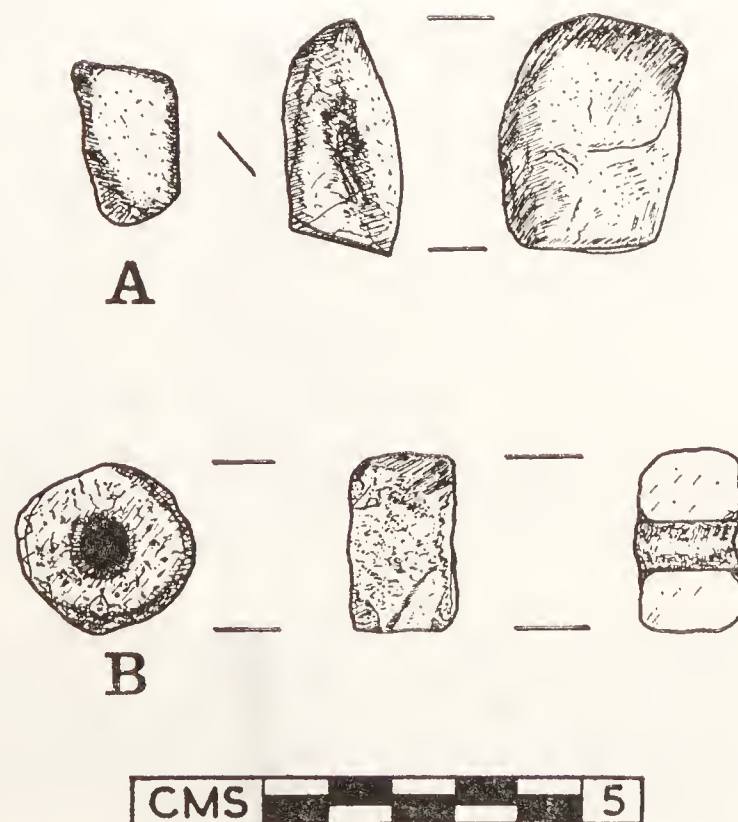


FIG. 15. Objects of Stone.

4. OBJECTS OF STONE (Fig. 15)

A spindle whorl of chalk was located in Section B2 (1) 28/7/60, at a depth of 1 ft. in chalky rubble (Fig. 15B). This may well belong to an earlier period, they appear to be common from the Late Iron Age onwards.

A number of plough runners of quartz occurred on the site and must belong to an earlier occupation. One (Fig. 15A) came from the area of the Great Hall Tr. III (22) 24/4/60.

5. BONES

Animal Bones from Weaverthorpe Manor, by R. Harcourt.

The number of identifiable bones in this collection was only 109 and the species represented, with the minimum of individuals of each shown in brackets, were cattle (3), sheep (3), pig (4), horse (2), dog (1) and birds.

A mandible from a dog (total length 114 mm., tooth row, molars and premolars 64 mm. and lower carnassial length 21.5 mm) was similar to that of a fox-terrier.

Among the pig bones the only specimens of note were three distal extremities of the humerus of 27, 32 and 33 mm. across the articular surface and a femur which had been sawn across just above its lower end; an interesting find because, in the writer's experience, specimens of bone, as opposed to antler, bearing saw marks are rare from all periods. It would seem from this and the relative frequency of cut marks, especially those near broken ends of bones, that the more commonly used tool must have been the cleaver or a heavy knife. Cattle and sheep together provided only one measureable specimen, a bovine astragalus of 58 mm. lateral length. The other bones of these species do not merit further mention.

The remains of horse, however, were prominent both in total number and, as seems common on Medieval sites, in the proportion of complete long bones. The measurements of these are shown in Table 1 and suggest ponies of approximately 13–14 hands (135–145 cms.), typical of the medieval period. A corner and lateral incisor, from the way they fitted together, probably came from the same 8–9 year old animal.

Table 1. *Measurements of Horse Bones (mm.)*

	total length	proximal width	mid shaft diameter	distal width
Humerus	—	—	—	71
1st Phalanx	77	47	33	41
	80	47	32	38
Radius	333	76	36	65
Metacarpal	212	—	31	47
	224	51	32	49

Extremities are measured across articular surfaces.

As has been discussed elsewhere¹ there is no way of knowing whether or not horse bones from this period represent animals that have been eaten, either after slaughter or after natural death. If they were not eaten, but, after death from natural causes, were buried why should the bones be found near buildings and separately, not as complete skeletons? It is perhaps possible that, just as at the present day, the meat of dead horses was removed from the carcass, leaving the bones intact and fed to dogs.

Birds

The species present were goose, probably domesticated, domestic fowl and peregrine falcon. The latter was represented by four bones of an adult and is an interesting find. It was almost certainly a trained bird and is an indication of the importance of this manor as this species was usually reserved for the use of people of high office.

Acknowledgement

The report on the bird remains was kindly provided by D. Bramwell.

Fish Bones – T. C. M. Brewster.

In the kitchen area and in one place at the eastern end of the Great Hall cod bones survived in the form of jaw and vertebra bones. Cod bones were fairly common at Sherburn Manor site and the habitation at Spital Corner, Staxton in the thirteenth and fourteenth century levels. Up to 1925, fish carts visited Weaverthorpe twice a week from the coast at Flamborough and Filey. It is probable that the medieval samples reached the area in the same way.

6. GRAIN – T. C. M. Brewster.

Two grains of carbonised wheat were located on the bottom of the pit containing Stamford ware (Fig. 3). They are large enough to compare well with wheat grown on rich land at the present day.

¹ Harcourt, R. A. in Keen, L. J., 'Excavations at Tattershall College', *forthcoming*.

MEDIEVAL ASSESSMENTS AND AGRICULTURAL PROSPERITY IN NORTHEAST YORKSHIRE: 1292-1342

By BRYAN WAITES

'The English landscape itself, to those who know how to read it aright, is the richest historical record we possess', wrote Dr. Hoskins.¹ But 'to read it aright' calls for skill and knowledge which needs to be attached to documentary sources wherever possible. 'To write the history of the English landscape requires a combination of documentary research and of fieldwork, of laborious scrambling on foot wherever the trail may lead.'²

The Domesday Survey has, perhaps of all the documentary sources, most to recommend it as an instrument for re-creating the 'historical present'; for portraying the landscape of the eleventh century. Unfortunately, so far as Yorkshire is concerned it gives little information about the normal distribution of agricultural prosperity. The reason for this is not difficult to find: the results of the great devastation of 1069 were still very evident in 1086. The recovery of the land had not proceeded far, and certainly the return to normal agricultural production was delayed and, in 1086, not evident. Even so, it is possible to see from the Survey that certain regions within the northeast were clearly of greater significance than others.³ Cleveland and the Vale of Pickering, for instance, showed the elements of that preponderance which was to become so marked later in the middle ages. But what was their place in the distribution of agricultural wealth under normal conditions? Was it as great as in other spheres of economic activity? What documents will help to solve this important problem?

It is not until the late thirteenth century that any major document can be produced which is comprehensive enough to indicate the distribution of agricultural prosperity in the northeast. Between the eleventh and thirteenth centuries many scattered sources such as monastic registers, feet of fines, and inquisitions throw light on the question, but they cannot stand alone – their information is too local and diverse to give the complete picture required. However, later assessments, made for the purpose of levying clerical and lay subsidies are more helpful.⁴ They were usually based either partially or wholly on the agricultural produce of the parish, vill or manor. In the case of the Ninth taken in 1342 on corn, wool and lambs, the basis was entirely agricultural and the unit was the parish.⁵ Such assessments can be of great value for indicating where agricultural prosperity was greatest, where it was at a minimum, which regions were richest and which soils the most influential in agricultural production. The information which such assessments provide lays the foundations, too, for a more detailed study of arable and pasture farming in the area.

The fifty years between 1292 and 1342 contained four major assessments, which, though imperfectly preserved, at least give an insight into relative agricultural prosperity within northeast Yorkshire during this time. The relevant assessments are the Valor of Pope Nicholas IV (1292); the Lay Subsidy of 1301; the 'New Tax' or Reassessment of the North (1318); and the Nonarum Inquisitiones (1342).⁶ All are sufficiently detailed, reasonably comprehensive and close together in time. Moreover, they occur at a critical

¹ W. G. Hoskins, *The Making of the English Landscape*, 1956, Introduction.

² *Ibid.*

³ I. S. Maxwell, *The Domesday Geography of Northern England*, Cambridge 1962.

⁴ E. M. Yates has used the Pope Nicholas Valor and the Nonarum Inquisitiones to illustrate the historical geography of Northwest Sussex in 'Medieval Assessments in the North-West Sussex', *Trans. Institute of British Geographers*, 20 (1954), pp. 75–92. See also his thesis for M.Sc. (GEOG.) 1953, University of London Library.

⁵ A. R. H. Baker, 'Evidence in the Nonarum Inquisitiones of Contracting Arable Lands in England during the early Fourteenth Century', *Economic History Review*, 2nd Ser. xix (1966), pp. 518–532.

⁶ *Taxatio Ecclesiastica Angliae et Walliae auctoritate P. Nicholai IV*, Record Commission, 1802; *Nonarum Inquisitiones*, Record Commission, 1807; *Yorkshire Lay Subsidy (1301)* ed. W. Brown, Yorkshire Archaeological Society Record Series, xxi (1897). The Lay Subsidies of 1297, 1327 and 1334 are of restricted value.

period in medieval agricultural history when the High Farming of the thirteenth century was being replaced by recession and, in some areas, threatened collapse of former agricultural prosperity.

The purpose and working of these assessments will be explained under their appropriate headings but first something should be said about how they will be used. The

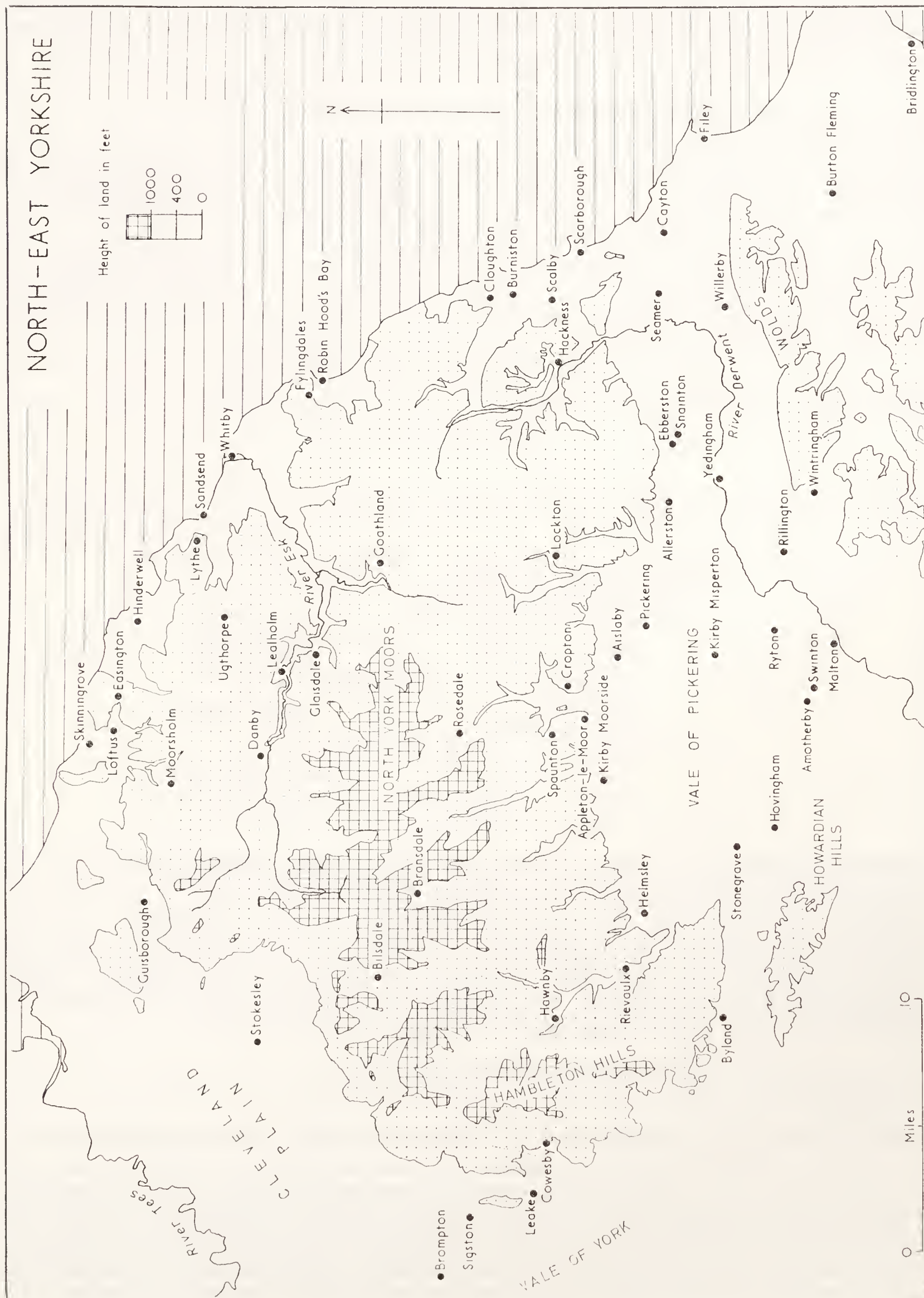


FIG. 1.

details of the 1292 and 1318 Valors have been set down in Appendix I and the benefices upon which the Valor was made have been arranged in their geographical regions. This has been done to try to obtain a clear picture of the relative prosperity of these regions. The acreage of each region has been calculated and the value per acre of the assessments worked out for each region in 1292 and 1318. By comparing these figures an idea of the relative regional prosperity can be adduced since, as will be shown later, the value of the benefices is a reliable indicator of the prosperity of the parish in which it is situated.

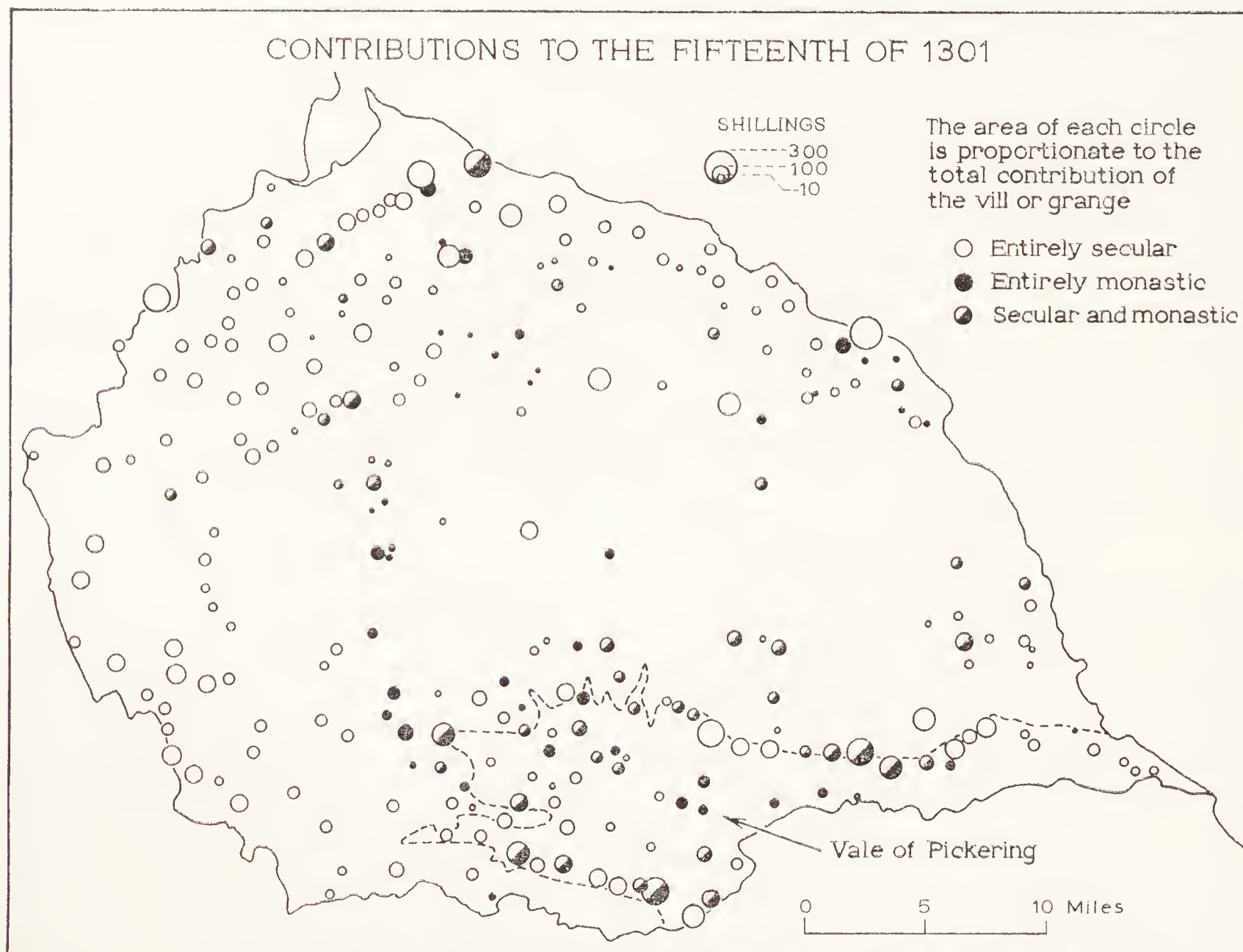


FIG. 2.

The Inquisition for the Ninth is too long to arrange similarly but an extract has been included in Appendix II to show the character of information given.

Four maps illustrate the assessments of 1292, 1301, 1318 and 1342 (Figs. 2, 4, 5, 6). Unlike the information in the appendices which was arranged regionally, the maps have been drawn to show the assessments arranged in terms of wapentake divisions. Again pence per acre figures are quoted. It is hoped that a combination of both methods will contribute to a clear picture of prosperity in the northeast as a whole.

THE VALOR OF POPE NICHOLAS (1292) (see Fig. 4)

1. Purpose

The Pope was entitled to take the First Fruits and Tenths of all ecclesiastical benefices. Sometimes he allowed the King to extract the tenth, usually for specific purposes, such as a proposed Crusade. Thus Pope Innocent IV granted it to Henry III for three years in 1253, which resulted in the Norwich Taxation of the following year. 'In the year 1288 Pope Nicholas the Fourth granted the tenths to King Edward the First for six years towards defraying the expense of an expedition to the Holy Land: and that they might be collected to their full value, a Taxation by the King's precept was begun in that

year (1288) and furnished as to the Province of Canterbury in 1291 and as to that of York in the following year.¹

The Valor of Pope Nicholas, then, consisted of the assessment made for the purpose of levying the tenth on clerical incomes. These incomes were derived largely from the agricultural produce of the parish by way of tithes. The relationship between the Valor and the agricultural production of the parish was partly obscured, since clerical income also included such non-agricultural items as oblations and mortuary fees, but this does not materially affect the picture of relative prosperity since the amounts were usually small from non-agricultural items.²

Three reservations must be made about the Valor. Benefices not exceeding six marks were exempt from the tax if the rector held no other living and unless they were appropriated to a religious house. Templars, Hospitallers and poor nunneries were exempt.³ Fortunately neither of these are important drawbacks. There was a more significant reservation however. Many benefices in the north did not pay on the basis of the 1292 Valor since the devastations of the Scottish armies at the turn of the thirteenth century had made them incapable of paying. They were consequently reassessed in 1318 and contributed on the basis of this, not the 1292 Valor. The significance of this is dealt with later. The non-payment of the 1292 tax by no means invalidates its use as an indicator of agricultural prosperity in 1292. It was an accurate assessment of conditions at that time, even though conditions quickly deteriorated.

Thus, although certain reservations must be remembered, the Valor of 1292 remains a useful indicator of relative agricultural prosperity.

2. *Agricultural Prosperity in 1292*

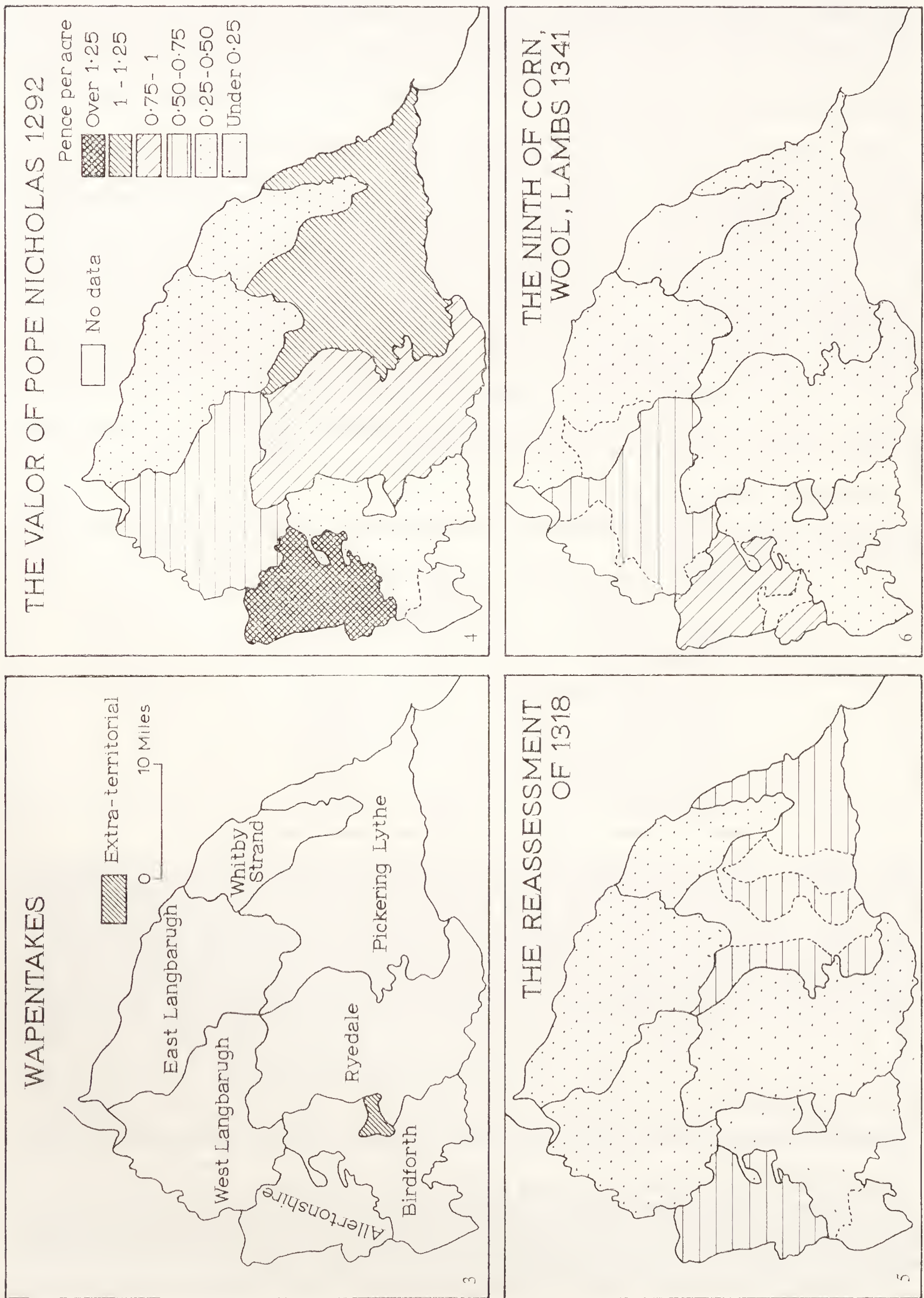
Appendix I shows that the Pickering Vale region had the highest value per acre. The other regions were as follows:—

Region	pence per acre
Pickering Vale	1.71
Teesmouth	1.12
Pickering Vale/Moors	0.97
York Vale	0.84
York Vale/Moors	0.62
Coastal Plateau	0.39
Moorlands	0.34

The Parishes of Pickering Vale were almost entirely situated in lowland but some of them, such as Barton, Hovingham and Appleton, extended over the limestone soils fringing the Howardian Hills. The high assessment of this region is rather surprising since much of Pickering Vale consisted of marshland and intractable peaty soils. Its prosperity undoubtedly derived from the parishes which fringed the central vale, and though including some marshy land, were mainly composed of gravel or limestone soils. Thus Hovingham (800s), Appleton (1033s) and Stonegrave (667s) fell into this category. The diversity and fertility of land included in such parishes was probably the main reason for their high assessments. On the other hand, the parishes of the central vale were more homogeneous, being entirely clayland, and this as well as the marshland in them accounted for lower assessments. Thus Edston was only 133s and Normanby 267s. In exceptional cases, such as Salton and Kirby Misperton, higher assessments probably

¹ *Taxatio Ecc. Angliae et Walliae auctoritate P. Nicholai IV*, Introduction.
² Several items which might at first sight appear non-agricultural elements of clerical income were, in fact, quite closely related to the agricultural realities of the parish, Glebe land and church demesne, for example, had much of their profits derived from their agricultural production. Within the scope of small tithes, too, fell the profits from such items as honey, flax, cider, cheese, etc.
³ R. Graham, 'The Taxation of Pope Nicholas IV' in *English Ecclesiastical Studies*, 1929, chapter xi.

resulted from monastic interest in the parishes. Salton, for instance, was a Prebend of St. Peter's, York, and both Rievaulx and Malton Priory had granges in Kirby Misperton parish.



Figs. 3-6.

Teesmouth, though a small region, came second to Pickering Vale, again emphasising the prosperity of lowland areas. In contrast the parishes of the moorland and coastal plateau regions were characterised by low assessments per acre. This was largely due to the infertility of the soils and the consequent dependence on sheep farming. A few parishes had high individual assessments; Hackness and Lastingham, for example, were 667s and 600s respectively. This might have been due to the stimulus given to agricultural production in the parishes by the monasteries. Whitby Abbey had important cattle farms and arable holdings in Hackness,¹ and Lastingham included the granges of St. Mary's, York, at Spaunton and Appleton within its boundaries. In addition, half of Rosedale was also within its area – this was a principal pasture ground for the sheep of Rosedale Abbey. Whitby and Lythe parishes in the Coastal Plateau region were situated partly in the mouth of Eskdale where the soil was a deep rich loam, the altitude less than it was elsewhere on the plateau, and the shelter more complete. Arable farming was thus of more importance and monastic participation in it was great (Whitby Abbey had most of its granges in the parishes).

Although the strip parishes of the Pickering Vale/Moor region had often as much as three-quarters of their area barren moorland the region as a whole was rated highly at 0.97d per acre. The Moor was barren of arable cultivation but certainly not useless. Its value as sheep range was immense. A large part of the income of the benefices in the region came from such a source.² For the rest, the fertile limestone soils of the Corallian, and the valuable water meadows fringing the River Derwent, contributed to this income. The open fields were situated at the junction between the limestone and clayland, often extending over both.³ This was the main area of arable production in each parish. It was undoubtedly the many-sided economy possible in such parishes which contributed to their high position in terms of agricultural prosperity.

The York Vale region, on the other hand, was probably that in which arable cultivation was emphasised and pastoral activities were less important.⁴ As might be expected of a lowland area of mainly fertile, though heavy, clay soils, the region had the high value per acre of 0.84d. The parishes with the highest individual assessments were those of the central Vale, near to the River Wiske. Thus Northallerton was 1467s, Kirby Wiske 1200s, and Thirsk 733s. These parishes were situated on the gravel and alluvial soils of the mid-Vale. As in the Teesmouth region, so here, the highest assessments appear to be in those parishes which contain a good deal of fertile alluvium within their boundaries. Kirkleatham (1600s) is the best example of this from the Teesmouth region.

An interesting and very important change occurs as the eastern margin of the York Vale region is approached. Parishes situated entirely in the lowland Vale give place to parishes situated partly on lowland and partly on moorland. The assessments of 1292 reflect this change and show that, as the York Vale/Moor region is reached, lower assessments are recorded. The value per acre of the region was only 0.62d as compared to 0.84d for the Vale, indicating a general decrease in prosperity between the regions. The parishes of the York Vale/Moor region contained much moor and woodland. Several, for instance, had the scarp face of the Cleveland or Hambleton Hills running through them. This was very heavily wooded in medieval times as, indeed, it is today. Consequently parishes like Kildale, Cowesby, Ingleby, Whorlton, Arncliffe and Felixkirk had rather low assessments. Stokesley, Osmotherley and Leake had higher assessments (1067, 560, 1067 shillings respectively) but much of these parishes was lowland. Stokesley,

¹ E.g., the vaccary of Kesebeck; the 'Bohus' of Harwood, valued at £11.3.6 in 1301; 'instauro de Hakenesse' worth £34.1.0.

² The wool tithe at Brompton was worth 200s and at Middleton 267s. The *Nonarum Inquisitiones* emphasise sheep farming in the area.

³ Evident from author's field work. The fields lay sometimes on Kimmeridge clay, sometimes on the limestone, but usually on both. They thus occupied the shelf of higher land which was 100 to 200 ft. above the level of the Vale clayland. Few open fields extended beyond the 'cliff' line into the carr land. Such land was, however, cultivated in the mid-Vale region near the River Rye, for example, between Ryton and Great Habton the ridge and furrow of the open field is very evident.

⁴ B. Waites, 'Aspects of Medieval Arable Farming in the Vale of York', in *Ryedale Historian* No. 2, April 1966, pp. 5-11.

for instance, was situated entirely in the Cleveland Plain, and had only a detached part of the parish on Westerdale Moor.

How far does the arrangement of the Valor by wapentakes in Fig. 4 confirm the regional pattern of prosperity so far evolved? Allertonshire and Pickering Lythe have the highest assessments per acre. East Langbarugh, Whitbystrand and Birdforth have the lowest, and Ryedale with West Langbarugh are intermediate. The pattern presented by Fig. 4 does, then, reproduce the regional distribution of prosperity previously established. That is to say, the lowland Vales of York, Pickering and Teesmouth are emphasised as very prosperous areas while the coastal region in particular, together with the area included in Birdforth wapentake are relatively inferior.

3. *Comparison of the Valor of 1292 and the Fifteenth of 1301*

Is this analysis of 1292 substantiated by later sources? The Fifteenth Subsidy (1301) can be used to answer this question.¹ Its value is enhanced because the basis and incidence of the assessment was different from the Valor of 1292 – and yet not so different as to invalidate a comparison. The unit of assessment was the vill or grange, not the parish; the Fifteenth was taken on moveables, which consisted mainly of animals and cereals.² Thus it was more closely related to agricultural realities than the 1292 Valor. Both documents were close to each other in time; relative agricultural prosperity could scarcely have changed materially in nine years.

Briefly, it may be said that the similarity between the distribution of agricultural wealth in 1292 and 1301 was great. The Vale of York, Pickering and Cleveland were still the wealthiest regions. In particular the line of villages along the northern margin of the Vale of Pickering and in the western half of the Vale were high in agricultural prosperity – as their corresponding parishes were shown to be in 1292. Similarly the villages on the edge of the Teesmouth alluvium, southwest of Kirkleatham were particularly emphasised. But the subsidy of 1301 showed more clearly how the monasteries had extended the areas of agricultural prosperity to include parts of the moorland (e.g., Upper Eskdale). The Valor of 1292, assessed on a parish basis, had not been able to indicate such finer points as this.

THE REASSESSMENT OF 1318³ (see Fig. 5)

1. *Purpose*

‘Set quid in istis partibus accense Scottorum furore hiis diebus vobis enarrare nescimus, nisi quod quicquid coram ipsis inveniunt in pulverem et cinerem convertunt, (non) parcendo statui, sexui vel etati . . .’

So wrote Archbishop Newark in 1298.⁴ The ravages of the Scots were to increase in range and intensity during the next half century. The Archbishops’ Registers are full of the injuries suffered by the diocese before and after the great defeats at Myton and Byland. The effect on religious houses was as severe as on towns and villages and the subsidies levied by both King and Archbishop were an added burden. In 1310, for example, Guisborough Priory provided 70 animals and 100 quarters of corn to aid the King, and Rievaulx 70 animals and 30 quarters of corn.⁵ But actual material damage was more disastrous.

¹ A fuller discussion of the 1301 Lay Subsidy, especially its value in the geography of settlement is given in, B. Wailes, ‘The Monastic Grange as a Factor in the Settlement of North-East Yorkshire’, *Yorkshire Archaeological Journal*, Pt. 160, 1962, pp. 627–656.

² A good idea of what moveables were taxed is given in the lay subsidy of 1297 which relates mainly to the West Riding. This states taxable goods in full. They were almost entirely agricultural, e.g., sheep, cattle and cereals. *Yorkshire Lay Subsidy* (1297) ed. W. Brown, Yorkshire Archaeological Society Record Series, xvi (1894).

³ Published by the Record Commission alongside the Pope Nicholas Taxation.

⁴ In a letter to Master John de Langton. *Register of Henry of Newark, Lord Archbishop of York* (1296–1299), Surtees Society, Vol. 128, pp. 316–317.

⁵ *Calendar of Patent Rolls* (1310), p. 299. In some instances the aid demanded was greater. Jervaulx supplied 110 sheep and 50 qrts. of corn; Fountains 100 wethers, 30 oxen and cows and 80 qrts. of corn; Bridlington 100 wethers and 60 qrts. of corn. On the other hand Byland supplied only 20 animals and no cereals, Malton 60 wethers and only 10 qrts. of wheat.

‘Abbatia de Fontibus in qua jacuit magna pars exercitus Scotorum, adeo spoliata et depraedata existit, grangiae et loca exteriora destructa et combusta ac depraedata in tantum, quod omnia bona ad dictum monasterium spectantia non sufficiunt his diebus ad sustentationem professorum ejusdem.’¹

The state of Rievaulx and Byland, which had a large-scale battle fought almost within their precincts, can well be imagined. Several houses had to be evacuated and sent to safer places such as Bridlington Priory.² After his defeat at Myton, together with the loss of his plate, Archbishop Melton himself was compelled to beg aid from his diocese.³

The Vale of York was a severely affected area. By 1322, for instance, 128 villages had been destroyed by the Scots, and even as far south as the East Riding 12 villages had suffered.⁴ It was little wonder that such wholesale devastation called for a reassessment of benefices, ‘that have been destroyed by the Scots, and to cause those that have not been newly taxed for this reason to be newly taxed according to their fine value so that a tenth of the clergy may be levied according to such taxation.’⁵ The reassessment took place in 1318. An examination of it shows how agricultural wealth had been affected between 1292 – 1318. It is very necessary to have this picture because it was to remain characteristic for at least the first three decades of the fourteenth century.

2. *Comparison of the 1292 Valor and 1318 Reassessment*

A glance at Appendix I is enough to show that some violent changes in value occurred. The most remarkable were in the Vale of York. Rudby was reduced from 1600s to 900s; Thirsk from 733s to 240s; Northallerton from 1467s to 533s; Kirkby Wiske from 1200s to 667s, all places in the direct line of advance of the Scots. The western half of the Vale of Pickering and the Teesmouth region had both been severely hit. Values in the eastern half of the Vale, however, with a few exceptions, remained unchanged. This was no doubt due to a pact made between certain men of Pickering and the Scottish King, whereby all the Vale east of the River Seven was to be spared invasion for a sum of money.⁶ Along the Coastal Plateau, and in the Moorland the difference in value was comparatively small. (From the data available the Wolds also appear less severely hit.) These regions had been off the main line of Scottish advance and the decline in values might have been due to other various but more normal hazards.

If Figs. 4 and 5 are compared the fall in values per acre between 1292 and 1318 is seen to be great. Allertonshire, 1.47d per acre in 1292, was only 0.66d per acre in 1318; Pickering Lythe, 1.13d per acre in 1292, was 0.5d per acre in 1318. It will be evident that it was just those areas which in 1292 had been to the forefront of the agricultural wealth of the northeast, which suffered most. Did this affect the picture of relative prosperity as seen in 1292? In fact although the assessments per acre of 1318 were all much lower than they had been in 1292 almost the same relationship between the wapentakes had been preserved. In 1318, as in 1292, Allertonshire and Pickering Lythe were the most prosperous while the wapentakes along the coast, plus Birdforth, were once again the poorest. While suffering great reductions in the Valors of their benefices, Allertonshire and Pickering Lythe yet remained predominant. This may become clearer if the assessment per acre for each wapentake are set down side by side for the years 1292 and 1318 in the order of importance.

It is clear that the distribution of agricultural prosperity in 1292 and 1318 followed a pattern of development. At both times Allertonshire was the most prosperous wapen-

¹ *Letters from Northern Registers*, ed. J. Raine, Rolls Series, Vol. 61 (1873), p. 282.

² E.g., Malton Priory and Rosedale Abbey, *ibid.*, pp. 318–323.

³ *Ibid.*, p. 295.

⁴ P.R.O. E 359/14, Collection of 1322 North Riding.

⁵ King's Writ authorising the enquiry is in J. Raine, *op. cit.*, pp. 279–282.

⁶ John Topcliffe, Rector of Seamer, William Wyvern and John Wickham, with others of Pickering, with the assent of the whole community on Tuesday, 13 Oct. 1322, purchased from Robert Bruce for 300 marks, the immunity of the Vale of Pickering from the River Seven on the west, to the sea on the east. Hostages were given as surety that the money would be paid and though ‘all the men and all the townships, manors, hamlets, lands and tenements of the said Vale within the bounds aforesaid were preserved from all damage and injury whatsoever’ no money had been paid so that the hostages were still prisoners in Scotland in 1325. *Honour and Forest of Pickering*, ed. R. B. Turton in 4 vols., North Riding Record Society, New Series, London, 1894–96, vol. 1, pp. 3–4.

take: Pickering Lythe, Ryedale and West Langbarugh came next, and Whitbystrand, Birdforth and East Langbarugh were far behind. This relative importance had been observable in Domesday times; it was to be the theme of succeeding centuries too.

1292	pence per acre	1318	pence per acre
Allertonshire	1.47	Allertonshire	0.66
Pickering Lythe	1.13	Pickering Lythe	0.50
Ryedale	0.84	West Langbarugh	0.41
West Langbarugh	0.74	Ryedale	0.38
Whitbystrand	0.48	East Langbarugh	0.28
Birdforth	0.48	Whitbystrand	0.27
East Langbarugh	0.47	Birdforth	0.17

THE NONARUM INQUISITIONES (1342)

1. *Purpose*

In 1342 Parliament granted a Ninth of the corn, wool and lambs of the kingdom to aid Edward III in his French and Scottish wars. This tax was levied on laity and religious by parishes. Parishioners from each parish declared on oath the true value of the ninth of corn, wool, and lambs for the past year. The Ninth was, in fact, equal to a tenth since the tithe of the parish had been taken before the Ninth was collected, and thus was excluded from assessment. For this reason the Valor of 1292 was consulted by the Commissioners and was included alongside the Ninth Inquisition for reference purposes. The Commissioners were to levy more if the Ninth exceeded the 1292 assessment and less if it fell below it. In every parish in the northeast the Ninth naturally fell below the Papal Valor since clerical incomes included much more than the tithe on corn, wool, and lambs. The parishioners explained the difference between the old and new assessments by referring to the revenues from glebe land, tithe of hay, small tithes in general, land uncultivated and so on. The parish of Easington, for example, was assessed at £20 for Pope Nicholas' Tax (1292) but the Ninth of corn, wool and lambs was only £6 15s 10d. This was £13 4s 2d less. The discrepancy was explained as follows by the parishioners on oath: a great part of the parish was uncultivated which, if it had been cultivated, would have been worth £4 to the Rectory; the church was situated in the moor where the parishioners live mainly by sheep from which the rector used to receive a tithe worth £6 13s 4d per year (2 sacks wool) and 60 lambs, now he scarcely receives 12 stone of wool and 10 lambs; the tithe of hay was worth 10s a year, altar dues, oblations, mortuary fees and other small tithes were worth 5 marks a year.¹ Other parishes had similar explanations. Kirby Wiske for instance, explained that the rector's income from wool and lambs had decreased, and besides 'due carucate terre fuerunt destructe per enundacionem aque de Swale . . .'²

The Nonarum Inquisitiones is an extremely valuable and direct indicator of agricultural prosperity. Previous assessments discussed contain non-agricultural elements which partly obscure a complete picture of agricultural prosperity. A study of the Ninth validates their usefulness, however, because it confirms their results. The usefulness of the Ninth is not restricted to this. Because the composition of the tithes and the extent of uncultivated land is given it becomes possible to see in detail what were the particular farming activities of a parish and how much of that parish was out of cultivation (and also the monetary loss this produced). Besides, the monastic share in the agriculture of a parish can be seen, because they too contributed to the Ninth. The relative wealth and importance of towns and markets can be evaluated because burgesses were compelled to contribute one-fifteenth of their goods to the subsidy. For the present the Inquisition will be used solely to assess the distribution of agricultural prosperity in 1341.

¹ *Nonarum Inquisitiones*, p. 231.

² *Ibid*, p. 234.

Several difficulties have to be overcome in using this document. The Inquisition is not as full and as informative for Yorkshire as for some other parts of England. In Sussex, for example, the Ninth was separated into its component parts – corn, wool and lambs, but in Yorkshire only the total Ninth was given. Wool and lamb tithes were sometimes quoted separately, sometimes together; sometimes they were given in sacks, sometimes in money value. More serious were the errors and omissions which the Record Commission volume of the *Nonarum Inquisitiones* contained. At Lastingham, for example, it did not mention that 160 lambs were part of the tithe. Similarly reference to two sacks of wool valued at five marks, for Kirkdale, is omitted.¹ The important word, arable, is frequently in the manuscript but not in the Record Commission version. The latter, too, often mentions a tithe as being from wool, when actually it was from wool and lambs. As for the monastic Ninth, the Record Commission version gives only the total contributed but the manuscripts give many details. Nothing is said, for example, about the Abbot of Rievaulx's nine carucates in Helmsley, five uncultivated and four 'in agricultura' from which the Ninth of corn was worth two marks and the ninth of wool and lambs 23s 4d.² Therefore, the manuscript of the *Nonarum Inquisitiones*, as well as associated documents have been used together with the printed version.³ Appendix II contains extracts from the Inquisition (arranged in regions) to illustrate the type of information it gives. Fig. 6 has been drawn to show the Ninth in terms of pence per acre for each wapentake.

2. *The Nonarum Inquisitiones and Agricultural Prosperity in 1341*

The distribution of agricultural wealth throughout the northeast in 1341 is clearly reflected in the information given by the Inquisition (Fig. 6). The features common to the distributions of 1292 and 1318 are once more emphasised.

The relative importance of the various wapentakes is shown by the following table:—

Wapentake	pence per acre
Allertonshire	0.98
West Langbarugh	0.52
Ryedale	0.43
Pickering Lythe	0.38
Birdforth	0.38
East Langbarugh	0.26
Whitbystrand	0.16

The Coastal Plateau was again the least prosperous region in terms of corn, wool and lambs. Birdforth, however, appears rather more wealthy than it seemed to be in 1292 and 1318 when it was among the most lowly-assessed wapentakes. The Vale of York and Cleveland stands out much more clearly than it did in 1292 and 1318, although then it was very prominent. As earlier, the richest parishes in terms of agricultural production were those in the Central Vale. Rudby (1200s), Northallerton (1000s), Kirby Wiske (733s), Birkby (400s) and Thirsk (400s) were among the richest in the entire northeast at this time. Evidently they had made a partial recovery from the Scottish devastations which had caused such a decline in 1318.

The area included in Ryedale and Pickering Lythe wapentakes contained a great deal of moorland, as well as the lowland of the Vale of Pickering. Sheep farming was the main source of income in the large strip parishes included in the wapentakes. Some individual parishes made very large contributions to the Ninth. Pickering, for example, contributed 1333s, more than all the Moorland parishes put together and almost as much as the total Ninth for the Coastal Plateau region (see Appendix II). This obviously

¹ P.R.O. E. 179/211/19, m. 107, Subsidy Rolls.

² *Ibid.*, m. 20.

³ The relevant mss. used were:—

P.R.O. E 179/211/16-18, Sales and Valuations of the Ninth.

P.R.O. E 179/211/19, Inquisition for the Ninth.

P.R.O. E 179/211/37, Fraud in Collection of the Ninth.

There are no figures for the East Riding in either the published or manuscript sources.

APPENDIX II

EXTRACTS FROM THE INQUISITION FOR THE NINTH (1341).
(included to show the type of information given).

PARISH	NINTH Total Monastic Share		TITHES Wool Lambs	Hay	Uncultivated Land	Ninth Value (If Cultivated)
COASTAL PLATEAU						
Loftus	120		93(10)		3 parts	53
Easington	136		ii(xiist) lx(x)	10	great part	80
Hinderwell	200		67(20)	40	6 parts	30
Whitby	203		iii(i) C(xxx)		half arable	120
Lythe	247				3 parts arable	107
Sneton	60		40(10)		2 parts	33
Fyling	113		160(53)		3 parts	40
Skelton	258		100		4 parts arable	40
Scalby	360	40	106(40)	30		
Total	1697	40				503
Pence per acre	0.19					
PICKERING VALE/ MOOR						
Hutton Bushel ..	320		i+ lxxx(xxx)		3 carucates	80
Brompton	533	40	200(80)	244*	10 carucates	133
Wykeham	135	40		30*	2 carucates	20
Thornton	160		i(vst)	80	3 carucates	30
Middleton	533	40	267(67)	267*	3 carucates	40
Pickering	1333	227				
Kirkby Moorside ..	409	10				
Helmsley	603	90	v(i+) CC(xl)	40	13 carucates	93
Kirkdale	283	17	133(33) C(xxvi)	27	5 carucates	50
Seamer	672					
Total	4979	464				446
Pence per acre ..	0.35					
MOORLAND						
Danby	200		133(-)		3 parts	(not given)
Hawnby	215	82	i(xst) xx(iii)	40	2 carucates	20
Scawton	53			10	2 carucates	20
Lastingham	453		160(67)		15 carucates	67
Levisham	48			13	2 carucates	20
Hackness	215		400(80)		half arable	120
Total	1184					247
Pence per acre ..	0.20					

Sources: P.R.O. E. 179/211/19 and *Nonarum Inquisitiones*, Record Commission, 1807.

The values of the Ninth are given to the nearest shilling and then the pence per acre figure is worked out for each region.

The Roman numerals in the Wool tithe column refer to actual numbers, i.e. in the case of wool – sacks; in the case of lambs – the specific number comprising the tithe.

Figures unbracketed refer to what the Rector ‘used to receive’; bracketed figures refer to what he receives ‘this year’.

* hay tithe and ‘dos ecclesie’ included together.

JOHN BUNNY'S HOUSE, WAKEFIELD

By K. S. BARTLETT

SUMMARY

This article provides a pre-demolition architectural survey of a timber framed House at N.G.R. S.E. 336205, built in 1553. The survey contains details of timbers and joiner's marks. Originally the house consisted of three ranges, a building of two bays parallel to the street (Building B), a south wing extending away from the street for 3 bays (Building A), and a north wing of similar size. Building A contained 3 bays, 14 ft. 6 ins. wide between wall plates, and 16 ft. 9 ins. long, centre to centre of principals. Building B had an internal width of 24 ft. between wall plates. The length of the bay, centre to centre of principals, was 12 ft. After demolition a small excavation provided the following sequence. The site was first occupied in the thirteenth and fourteenth centuries, with 2 building phases. After the fourteenth century it was abandoned for 200 years until John Bunny's house was built.

I

INTRODUCTION

The work of the Wakefield Archaeological Research Group has been concerned with two closely connected aspects of the city's history. On the one hand the rapid increase in redevelopment has made it imperative to record the architectural history of the half-timbered houses surviving from the later Middle Ages; on the other, the opportunity for excavation after demolition can provide evidence for the medieval growth of Wakefield. The work on John Bunny's House fulfilled both aims and this report combines an archaeological examination with an architectural survey. The archaeological objects were to determine whether there had been any structure on the site before the house was built by John Bunny in 1553 and how far such occupation extended.¹

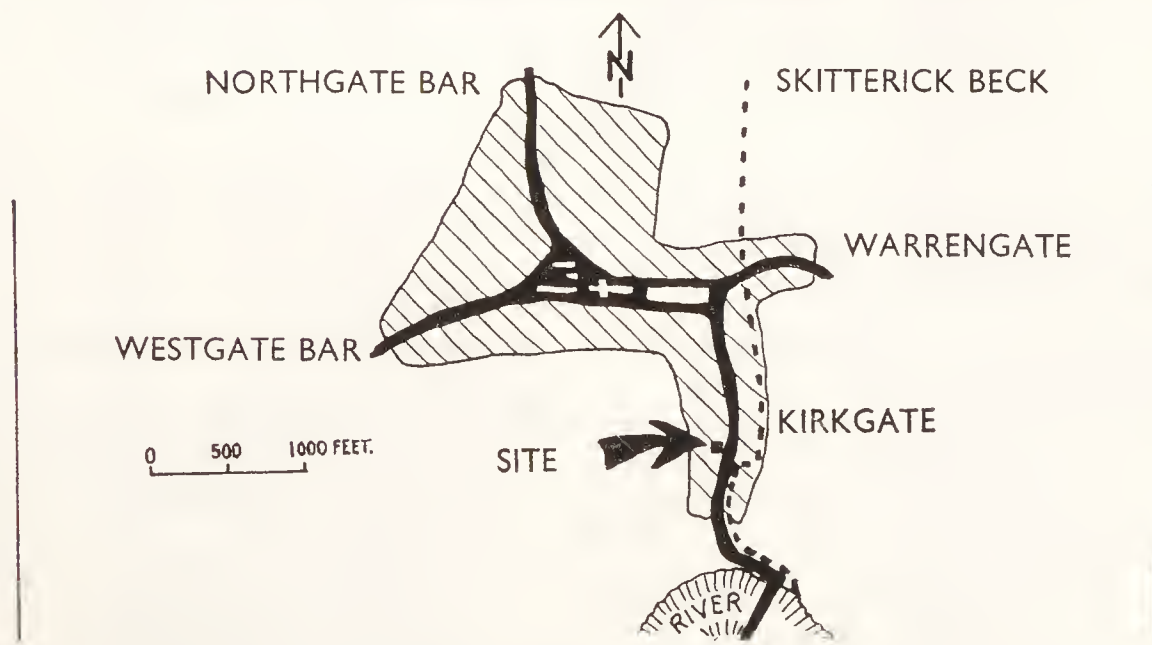


FIG. 1. Wakefield 1823.

The focus of medieval Wakefield was around the Parish Church (now the Cathedral) and the market place. The extent of the built-up area was marked by bars or gates, across Northgate and Westgate, Kirkgate to the south, and Warrengate to the east. The actual sites of the bars in Warrengate and Kirkgate are unknown. The area excavated lay 330 yds. from the bank of the river at the southern end of Kirkgate, and it was originally assumed that the site would be well outside the bar.

¹ *Acknowledgements.* I should like to thank Mr. Thornton of H. Laidlaw and Son, auctioneers and estate agents, for permission to survey the building and conduct the excavation; fellow members of Wakefield Archaeological Research Group (now amalgamated with Wakefield Historical Society) for assistance in the survey and excavation, and Wakefield Corporation Town Planning and City Engineers Departments for their considerable help.

II

THE ARCHITECTURAL SURVEY

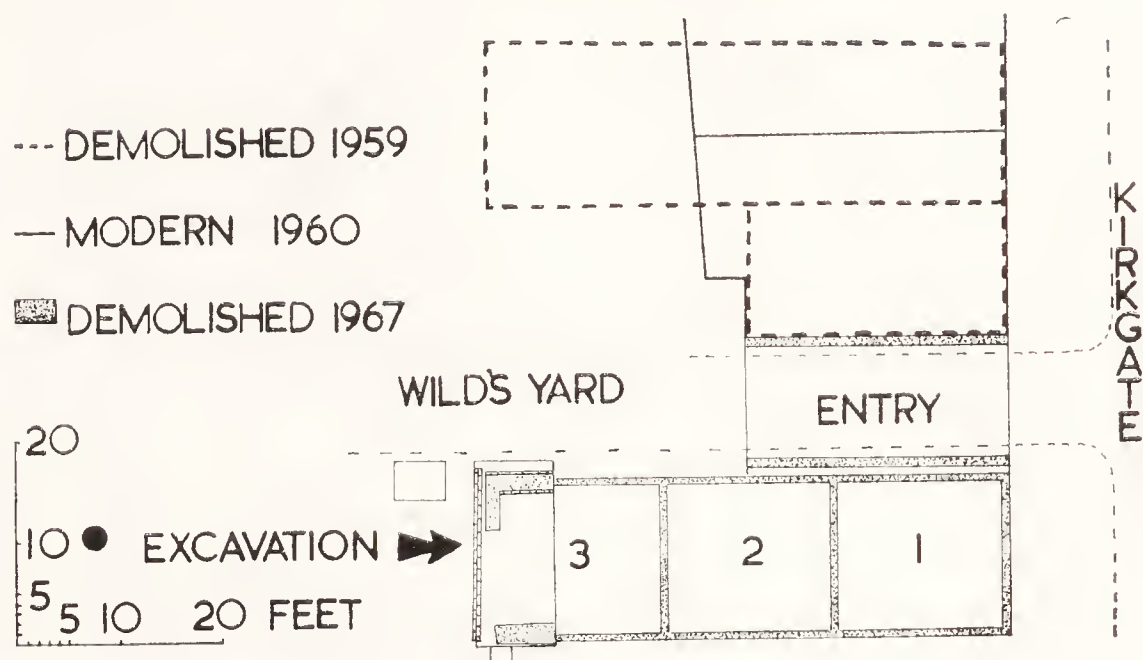


FIG. 2.

Buildings A (south of Wild's Yard entry) and B (above the entry).

John Bunny, a dyer in Wakefield, was a member of a prominent local family and erected a house in 1553 at the southern end of Kirkgate (N.G.R. S.E. 336205).¹ When originally built it consisted of three ranges, firstly a building of 2 bays parallel to the street (Building B), and two wings, the one on the south extending away from the street for 3 bays (Building A) and a north wing of similar size, which, with part of Building B, had been demolished in 1959. Earlier, during alterations to this part a carved beam had been found (Fig. 2a) bearing the inscription THIS HOWS WAS BVYLDYT AN NO.M.D.LIII.FARST YERE OF QVEN MAYRE BY JOHN BUNNY. Part of this beam is now in the show rooms of J. Woodhead and Son, Charlotte Street, Kirkgate, Wakefield. The length of the surviving carved beam was 11 ft. 5 ins. and as the length of the missing piece was calculated to be 2 ft. 4 ins. the total length would be 13 ft. 9 ins. It was 7½ ins. wide and 1 in. thick (Fig. 2a).²



FIG. 2A. Carved beam from John Bunny's House, Wakefield.

Building A

The southern half of the structure (184–186 Kirkgate) consisted of the three bays of the south wing (Building A) and one bay of Building B, pierced by the entry to Wild's Yard (Figs. 2 and 3). This had been encased in brick cladding obscuring its half-timbered character. The collapse of a small part of this brick cladding in 1967 drew attention to the nature of the house. It was scheduled for demolition because the structure was unsafe and this survey was conducted immediately before the demolition.

¹ John was descended from Richard Bunny of Bunny Hall who had married Joan, daughter of Thomas Haselden of Haselden Hall, in 1412. Their son John married the daughter of John Gargrave of Snape-thorpe and left two sons, Richard and John; The elder, Richard, married Elizabeth daughter of James Hammerton of Munkroyd and died in 1520. The younger, John, was the builder of this house. See J. W. Walker, *Wakefield, Its History and Its People*, (1939), Volume 2, p. 668; Hewitt, *History of Wakefield* (1851); W. S. Banks, *Walks in Yorkshire, Wakefield and its Neighbourhood* (1871), p. 77.

² The most likely position for this beam would be spanning the width from bressumer to bressumer in Building C, which would be the same dimensions as Building A.

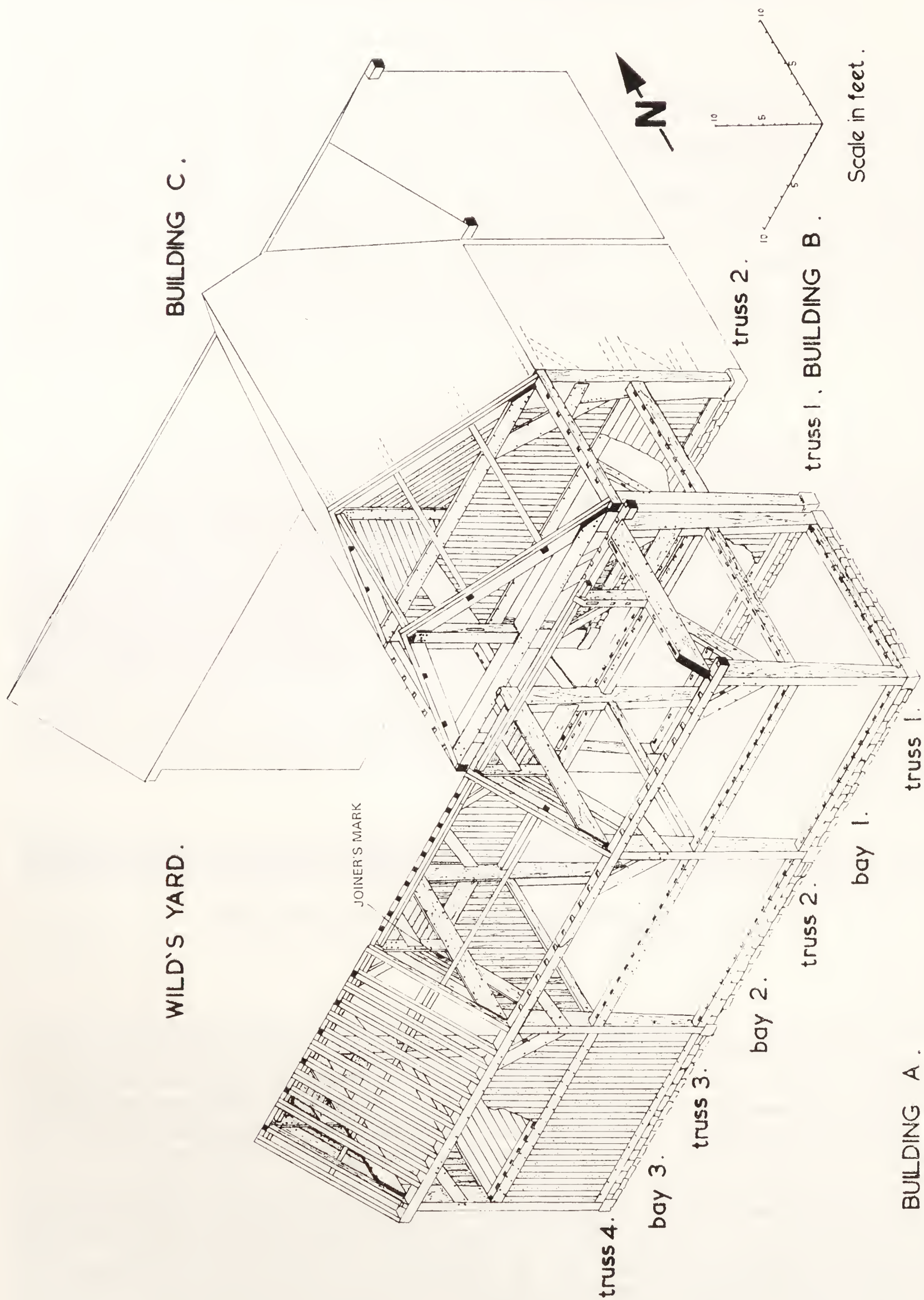


FIG. 3. Isometric view of the timber framework of John Bunny's House with studding and floor partially reconstructed.

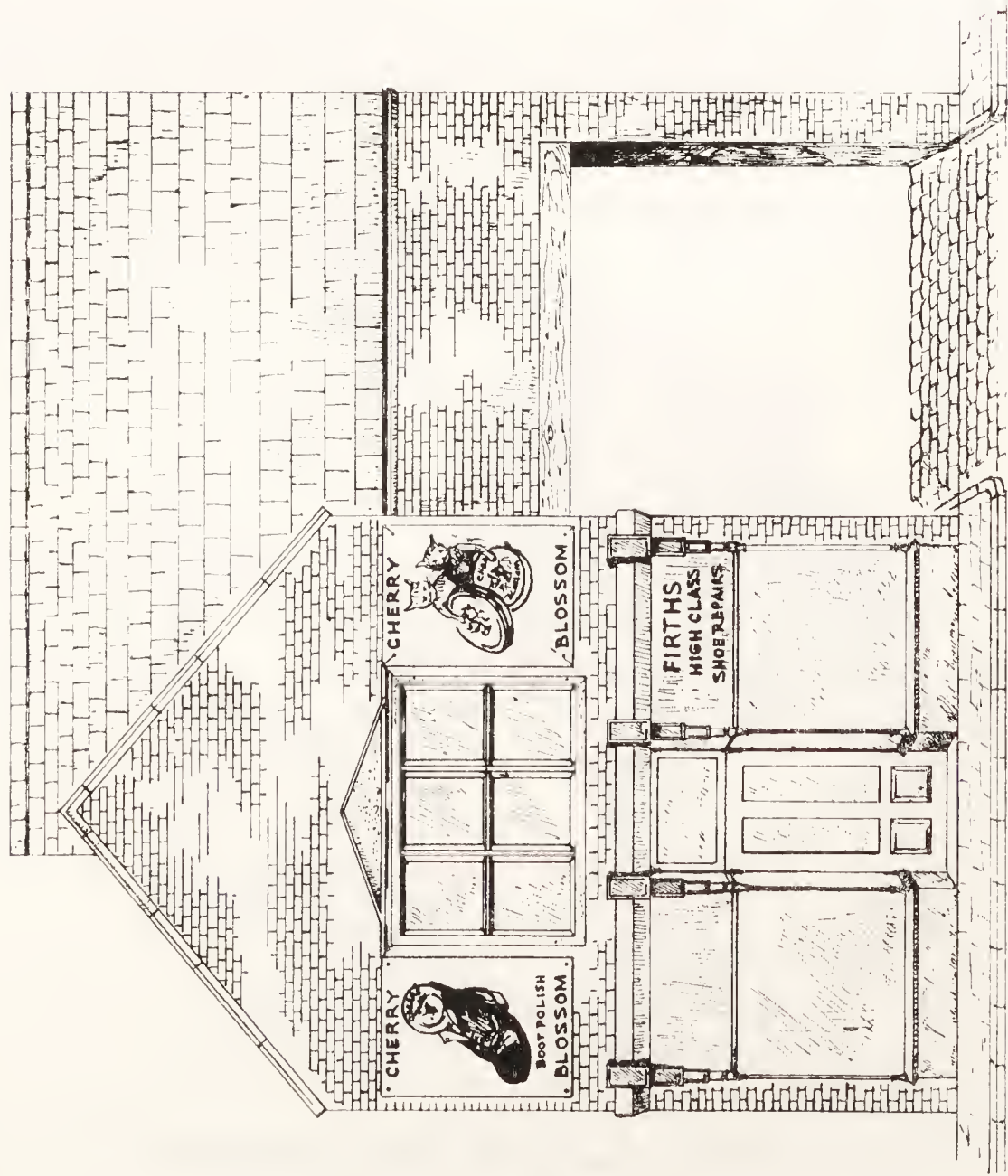


FIG. 4. John Bunny's House, Kirkgate (remaining with late façade).

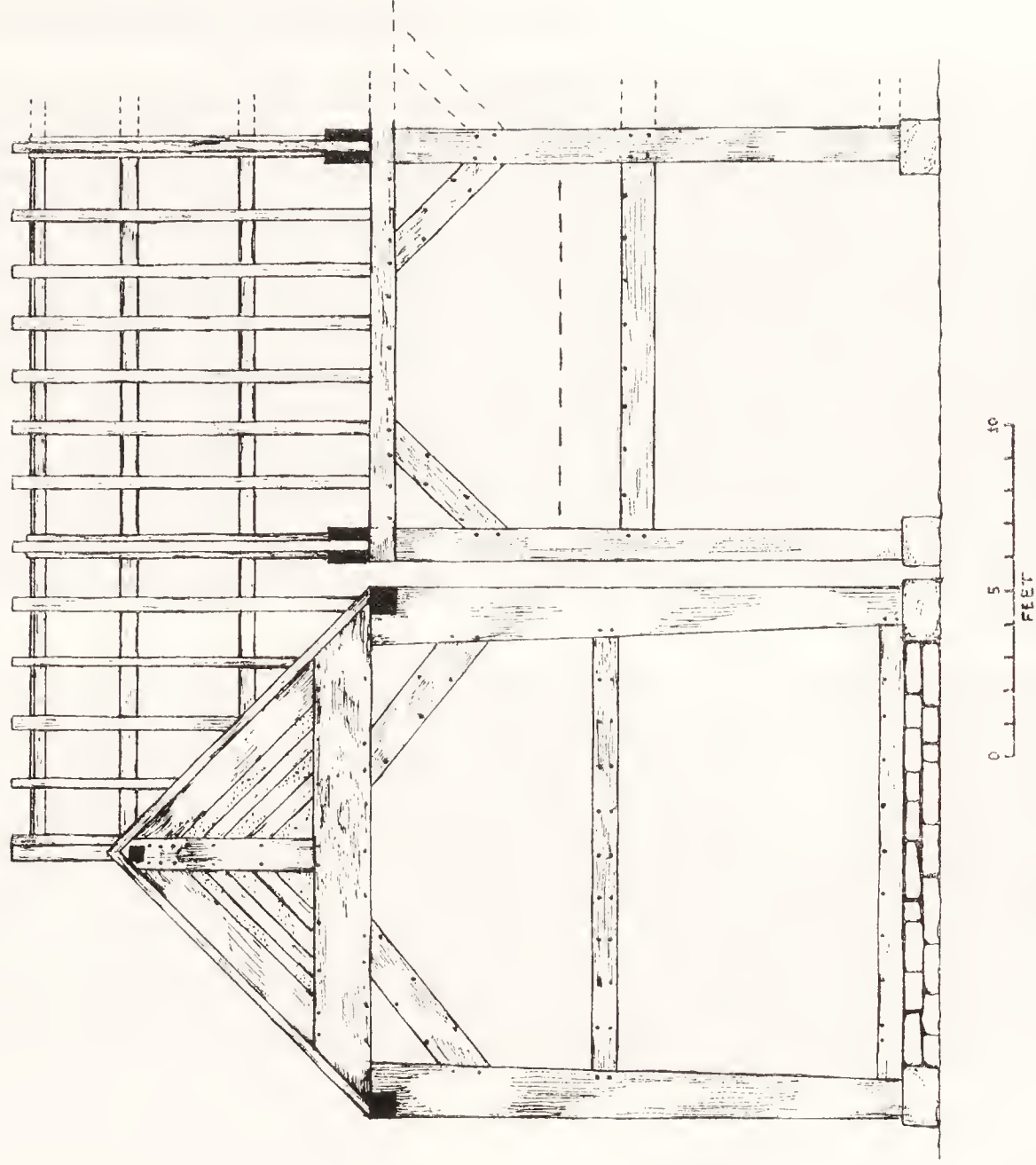


FIG. 5. Reconstruction of remaining frontage.

Bays 1 and 2 of the ground floor of Building A were used as shop premises, and the remaining bay a dwelling house. Each bay was approximately 16 ft. square inside. Upstairs Bays 1 and 2 contained a room as far as Truss 2, behind which was a passage 3 ft. wide running the width of the building behind the truss. Between the passage and Truss 3 was another room, from which a sealed doorway led to the next bay, the dwelling house. The passage behind Truss 2 also led to a small staircase rising to Bay 1 of Building B, over the entry. The floor of the room over the entry had been lifted 3 ft. above bressumer level (Fig. 5). The principal to Truss 1 of Building B on the west, adjoining Wild's Yard, was missing, this had been replaced by a pillar of bricks which had caused the corresponding tie beam to sag 3 ins. out of alignment, although this is not shown on the survey. This corner of Wild's Yard would trap the weather, causing premature rotting of the timbers. It would seem that the raising of the floor in the entry was completed at the same time as the replacement of the principal by the pillar of bricks, in the nineteenth century.

The internal width of Bays 1 to 3, wall plate to wall plate, was 14 ft. 6 ins. The length of each bay, centre to centre of principals, was 16 ft. 9 ins. The height from raised sill to wall plate was 16 ft., and from raised sill to ridge, including common rafter, 24 ft. This gives a difference of 3 ft. in height between the roofs of Buildings A and B. The difference was overcome by placing a small gable on the ridge of Building A, Bay 1, to support the extended ridge of Building B (Fig. 6). The king post in this small gable was braced by diagonal studding from ridge to king post, with plaster and lath between. The gables in all four trusses of Building A were closed and had diagonal studding. The king posts were linked to square-set ridges by straight braces. This was a feature peculiar to Building A, Building B having diagonally-set ridges.

Building B

The internal width of Bay 1, between wall plates, was 24 ft. The length of the bay from centre to centre of principals was 12 ft. The height from raised sill to wall plate

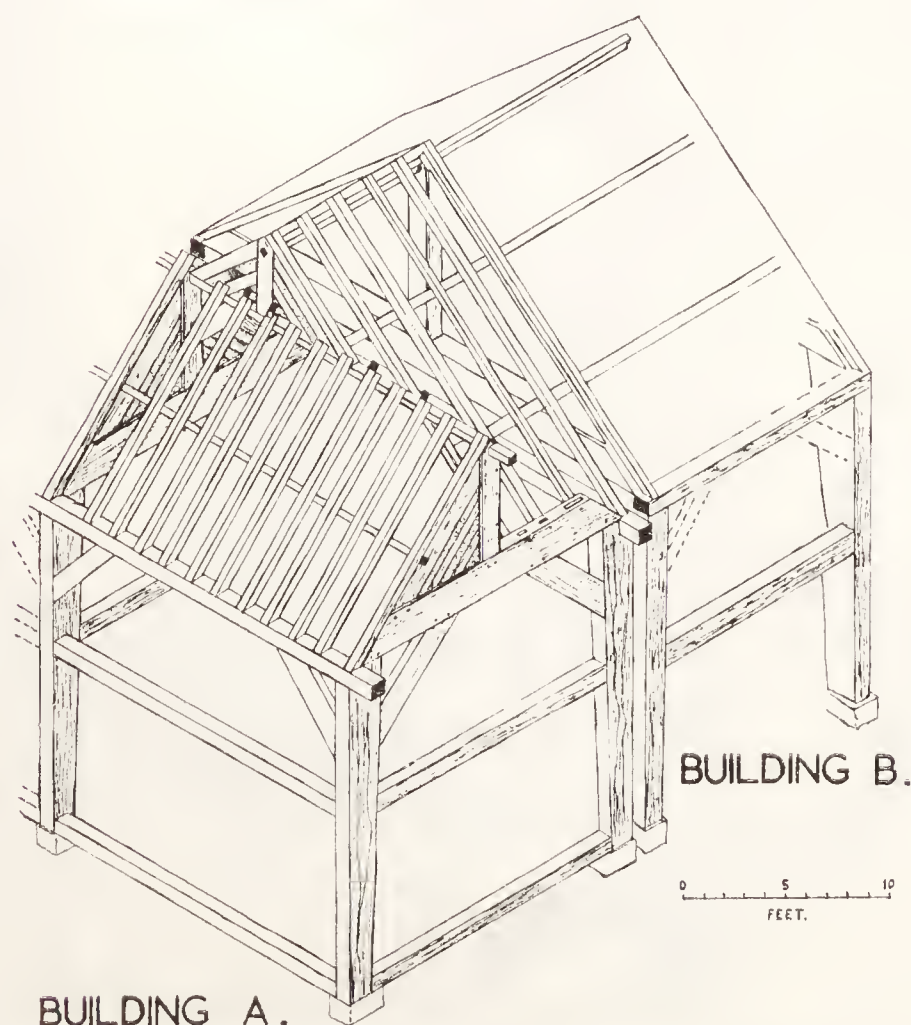


FIG. 6. Details of roof joints, buildings A and B.

was 16 ft., and from raised sill to ridge, including common rafter, 27 ft. Truss 1 (Figs. 3 and 7) was an open truss, the king post showing signs of being a re-used timber, for a mortice had been cut in the side facing the frontage and two corresponding peg holes had been made, for no reason apparently connected with the present building. The space between tie beam and bressumer was fully closed with closed studding and plaster and lath. The area immediately beneath this, which formed the side of the entry was also similarly enclosed. Truss 2 (Figs. 3 and 7) was fully enclosed down to the bressumer, with diagonal studding in the gable from king post to tie beam, and vertical studding with plaster and lath from tie beam to bressumer. The lower portion between bressumer and sill had been studded, for although this had been replaced by brick cladding the mortices for the studs were visible. The principals were further secured to wall plate and tie beam by straight braces. There were mortices on the opposite sides of the principals of Truss 2, Building B, which proved that the building extended at least another bay further.¹

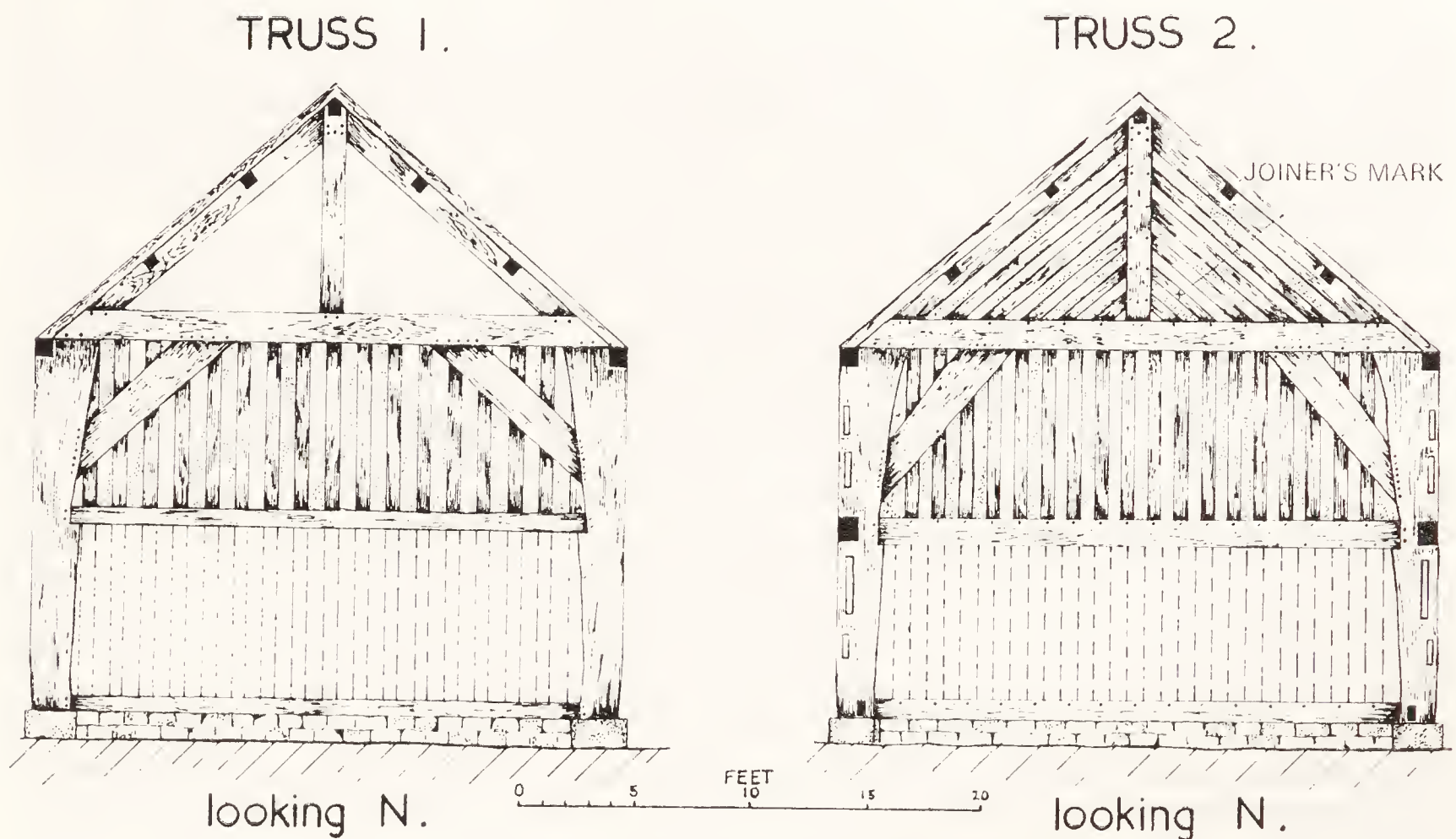


FIG. 7. Elevations to trusses 1 and 2, building B.

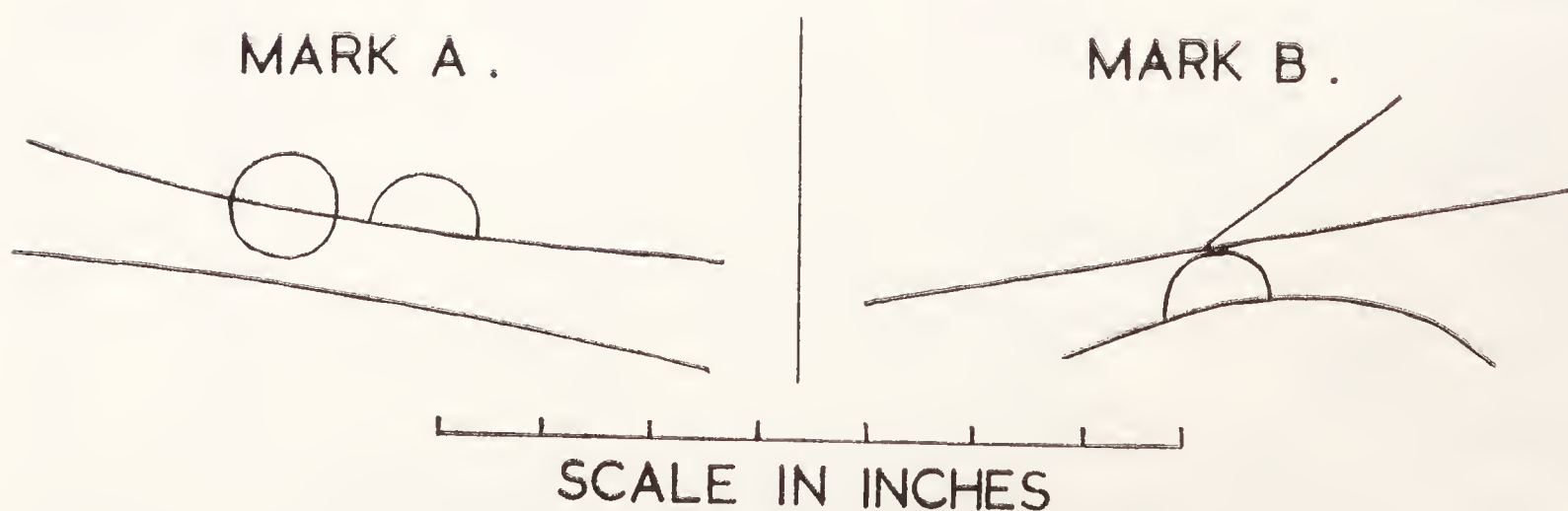


FIG. 8. Details of joiner's marks.
A: Truss 3, Building A. B: Truss 2, Building B.

¹ The evidence for the demolished part of the building was taken from an old photograph.

Joiner's Marks (Fig. 8)

Mark A was found on the bottom diagonal stud on the left side of Truss 3 of Building A (Fig. 3). Mark B was found on the diagonal stud second from the bottom on the right of Truss 2, Building B (Fig. 7). The circles and half circles were made with an auger, or possibly a compass, the centre of the circle having been pierced. With the exception of fabrication marks these are the first joiner's marks to have been found in Wakefield.

Carpentry

The standard of carpentry in both buildings was very good, but whereas Building A had small neat trusses, those in Building B were heavy and exceptionally large. The principals of this building were massive pieces of timber 16 ft. 6 ins. long including tie beam tenons; in section they were 2 ft. 9 ins. by 1 ft. 2 ins. at the top, tapering to 1 ft. 9 ins. by 1 ft. 2 ins. at the bottom. The usual section for principals so far found in Wakefield is 1 ft. 9 ins. by 9 ins. at the top, tapering to 1 ft. by 9 ins. Building A compares well with Building B of Haselden Hall, which is dated 1584¹ and is later than Bunny's Building B. This is shown in the gable of Truss 2, Building A. On the south side of this gable the tie beam has been cut obliquely to continue the slope of the principal rafter, whereas on the north side the tie beam has been left square. When Building A was built it was never intended that a roof should slope down this side of the gable, which would be covered by the extended roof of Building B.²

Timber framed buildings were generally constructed with a very strong frame, mainly of oak, with the principal timbers resting either on stone stylobates or mortised into continuous timber ground sills running from end to end of the building. The filling-in between this framework was composed of vertical studs with spaces between. The sides of the studs were grooved and into these were set diagonally-set pieces of split oak, which supported a filling of clay mixed with straw; later the filling was of plaster, and it was this that was used in both Building A and Building B. Here sawn and planed oak was used throughout the construction of the timber frame, secured by pointed wooden pegs approximately one foot long and one inch in diameter at the thick end. In country districts and where there was a shortage of stone the timber-framed house would have a thatched roof, but as stone was plentiful in the Wakefield area Bunny's house used slabs. Long thin pieces of wood were laid horizontally across the common rafters, and on these were laid overlapping slabs, secured by oak pegs 2 ins. long and half an inch wide, each driven through a hole at the top of the stone. The peg then rested against the horizontal timbers, preventing movement of slabs which weighed up to half a hundred-weight each.

DIMENSIONS OF TIMBERS

<i>Building A</i>			<i>Width</i> (inches)		<i>Thickness</i> (inches)	<i>Length</i> (feet inches)	
Principals	..	..	21-15		9	16	4
Tie Beam	..	..	21		9	15	—
King Post	..	..	12		9	6	—
Wall Plate	..	..	9		9	27	6
Purlins	..	..	6		6	27	6
Ridge	..	..	6		7	27	6
Principal Rafters	..	..	12		6	8	3
Common Rafters	..	..	5		4	13	6
Bressumer	..	..	9		9	—	—

¹ Field, J. J., 'Haselden Hall, Wakefield', *Post-Med. Arch.* 3 (1969), 188-190.

² During demolition samples of timber were taken for dendro-chronological research (see Fig. 3):—

1. End of the tie beam north side of Truss 3, Building A.
2. The bottom diagonal stud on the south side of Truss 3, Building A.
3. Top of the principal on the north side of Truss 3, Building A.
4. The bottom of the king post of Truss 1, Building B.
5. Part of the top of the principal on the east side of Truss 2, Building B.

Building B

Principals	33-21	14	16	6
Tie Beam	14	12	25	—
King Post	14	12	9	—
Wall Plate	9	9	26	6
Purlins	8	6	22	—
Ridge	8	7	22	—
Principal Rafters ..	12	6	14	6
Common Rafters ..	7	6	17	—
Bressumer	9	12	12	—

III

THE EXCAVATION

In the autumn of 1967 Leeds University Archaeological Society, led by Mr. Don Stewart, undertook a small excavation in Bays 1 and 2 of Building A. This proved unsuccessful as most of the levels had been removed prior to the construction of the foundations for the wooden floor. The area chosen for a later excavation¹ was the gable end of Building A, Bay 3 (Fig. 2). This was selected because it had been used as a dwelling house and had a stone-flagged floor. The other two bays used for the shop had wooden floors, the provision of which had involved the removal of about 2 ft. of earlier levels to build a four-course brick wall supporting the floor joists. This had largely destroyed the archaeological levels. The ground floor of Building B, Bay 1 (Fig. 3) had been used as an entry to gain access to Wild's Yard. Here again, all archaeological levels would have been destroyed by recent trenches containing mains services.

During demolition the flagged floor had been removed from Bay 3 of Building A. This left a shallow covering of rubble over the first level. A trench 8 ft. by 18 ft. 6 ins. was opened to include the gable end. The removal of the demolition rubble immediately exposed a sixteenth-century level which had been covered by the flagstones (Fig. 9, Sections A-B, C-D). This consisted of a layer of cobbles and clay, and scattered within this were a few sherds of sixteenth-century pottery. This was the original floor of the building and the bay had probably been a stable.

Removing the rest of the clay and cobbles revealed another sixteenth-century layer, which sloped down from the centre of the trench and continued underneath the wall (W1) which stood on this material. This layer consisted of a fine dark grey silty and sticky clay, which contained rust-coloured flecks and sixteenth-century pottery, suggesting that Wall 1 was contemporary with Bunny's house.

Removal of the demolition rubble in the area between Wall 1 and the side of the Trench A-C disclosed disturbance caused by the recent provision of services to the building. Below the disturbed area the sixteenth-century level again appeared. Wall 1 was then removed completely as far its junction with Wall 3 (Fig. 9). Below the sixteenth-century occupation the remaining floor sloped up from where Wall 1 had been, to the top of the first course of Wall 2 (Fig. 9, Section A-B and C-D). This consisted of two courses at B but was reduced to one course at D, ending abruptly 2 ft. further on. The bottom course of this wall was buried in medieval level 1. No sign of a construction trench was found, so this wall must be contemporary with the medieval level.

The removal of the first 2 ins. to 3 ins. of the medieval level showed 3 slots (Fig. 9). These were 2 ft. to 2 ft. 6 ins. long, 3 ins. to 6 ins. deep, and 3 ins. wide. The slot adjacent to Wall 2 contained a piece of stone roofing tile which stood vertically in the slot, projecting 3 ins. above the edge of the slot. All three slots were filled with domestic ash. There is no obvious explanation for these slots unless they were a foundation for uprights supporting a bench or seat.

¹ Carried out between January and March 1968 by the Wakefield Archaeological Research Group.

section between A & B.

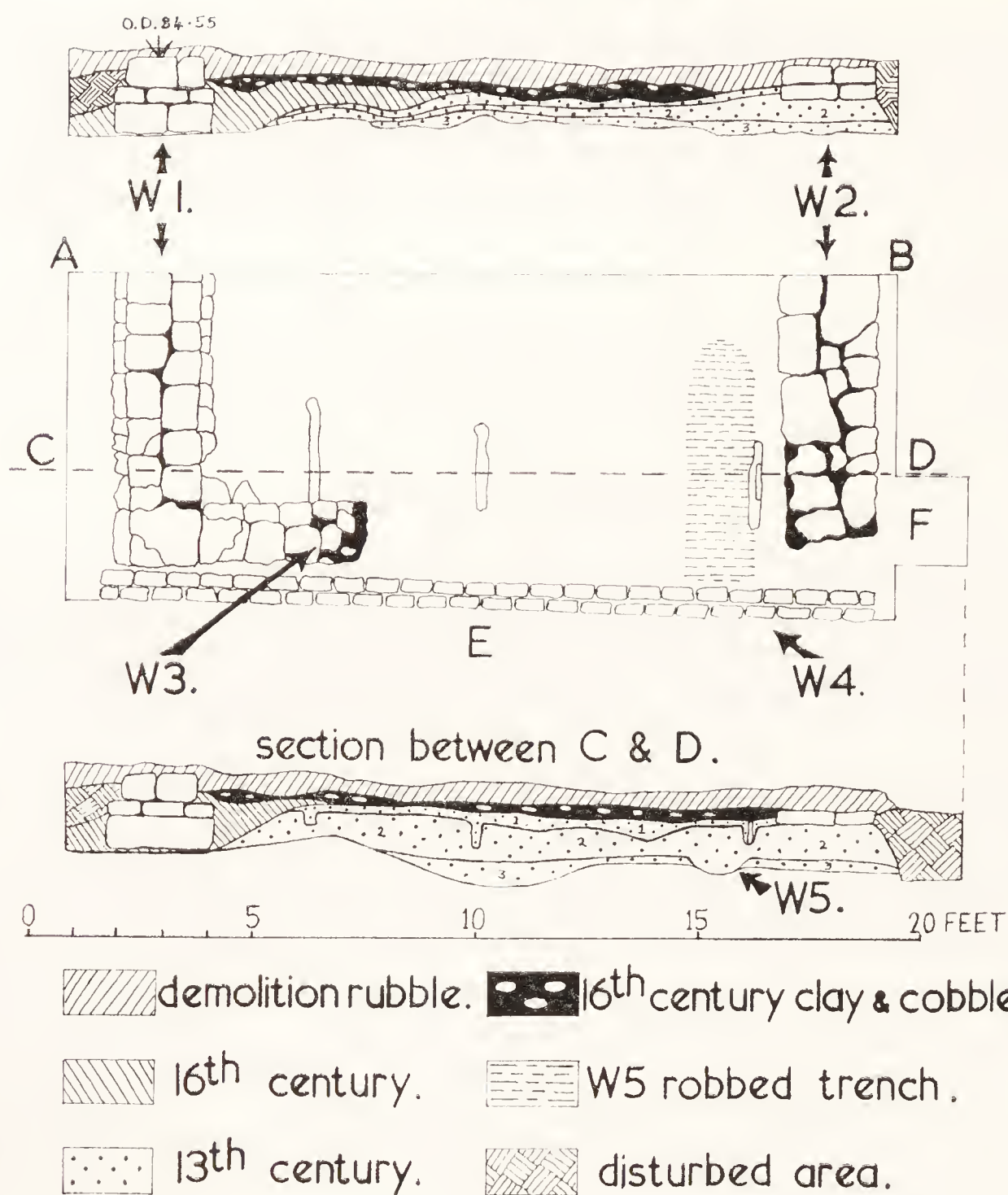


FIG. 9. Sections (see Fig. 2).

The medieval level 1 consisted of a fine sandy subsoil containing coal, charcoal, corroded iron, and a scattering of medieval pottery. Wall 3 was firmly embedded in this layer and consisted of a soft yellow sandstone. No sign of a construction trench was found on the inside of the building. The outside of Wall 3 (W3) had been disturbed by the building of a modern wall (W4), and the space between these walls had been filled with rubble.

Wall 3 ended abruptly 3 ft. 6 ins. out from Wall 1. The area between Wall 3 and Wall 2 was filled by the medieval occupation level which ran right up to Wall 4, there being no evidence to suggest that Wall 3 ever extended further than shown on the plan. Removal of further medieval occupation (medieval Layer 2, Section C-D) uncovered the construction trench of Wall 5, which had been robbed of almost all its stone. Medieval Layer 3 when removed left a depression in the centre of the trench (Section C-D), which, although at its deepest at E, gradually levelled out at the opposite side of the Trench A-B.

The natural sub-soil consisted of a quarter of an inch of iron pan, beneath which was a fine yellow clay with rust coloured flecks. At this point permission was received from the owners of the adjoining property to extend a small trench into the garden behind Wall 2 (see F on plan, Fig. 9). This was to check whether the levels already excavated continued outside the area occupied by the building. It was found that they had been completely removed by later building and garden cultivation (Section C-D). Similarly the area extending outwards from the gable end at E at the other side of Wall 4 had also been destroyed by the construction of the adjoining building to which Wall 4 belonged.

IV

INTERPRETATION

The following sequence is suggested for the use of the site of John Bunny's house. It was occupied from early in the thirteenth until the middle of the fourteenth century, probably with two phases of building.

1. Walls 3 and 5, which could be contemporary: early thirteenth century.
2. Wall 2, which was later than 3 or 5: possibly fourteenth century.

The site was then abandoned for 200 years until Bunny's house was built in 1553, the builders re-using Wall 2 for the footings and erecting Wall 1.

The high mortality in Wakefield at the time of the Black Death of 1349 should be noted in connection with the abandonment of the site.¹ The southern end of Kirkgate was a notoriously boggy area well into the last century, being known as 'The Softs'. The Skitterick Beck runs down the eastern side of the road to the River Calder at the Chantry Bridge, and would cause much of this problem, particularly as it was open in the medieval period and, as town sewer, was only flagged over in the middle of the eighteenth century. The area would tend to be abandoned when population contracted and better properties became vacant, and it was indeed surprising to find this early occupation so far south on Kirkgate, presumably outside the Bar.

In fact further excavations have since proved that both sides of Kirkgate had intensive medieval occupation as far south as Charlotte Street, and even the remaining stretch to the Chantry Bridge may well have been built up, giving continuous habitation from the Parish Church to the river.

THE POTTERY, Fig. 10 and 11

Sixteenth century levels

1. A straight-sided Cistercian-ware cup with black glaze on a chocolate-coloured fabric. Similar to pot No. 5, Lindale Lane Kiln report (see Bartlett, 'Excavations at Potovens 1968'; *Post-Med. Arch.* 5 (1971).
2. Cistercian-ware Type 4 cup with black glaze on a chocolate-coloured fabric. (For typology see H. E. J. Le Patourel, 'Pontefract'; *Thoresby Soc. Pub.* xlix (1965), 115-19.)
3. Base of Cistercian-ware Type 4 cup with light brown glaze on a red fabric (see Le Patourel, *ibid.*).
4. Body sherd of a decorated Cistercian-ware Posset pot with cream decoration on a dark brown glaze and red/grey slightly reduced fabric. The cream slip-decoration has a horizontal milled effect similar to Le Patourel, *ibid.*, Fig. 38, No. 1c.
5. A rim fragment of a decorated slipware bowl from the uppermost floor level within the building.

UNSTRATIFIED POTTERY

This pottery came from the disturbed area outside Wall 1.

6. Body sherd of a large jug with purple glaze and purple fabric.
7. Large industrial jar of unglazed fireclay fabric with shale inclusions.
8. Jug with brown glaze inside and out, and pinky red fabric.

STRATIFICATION OF MEDIEVAL POTTERY. As can be seen from sections A-B and C-D (Fig. 9) the medieval layer near the gable end was in some places two feet thick. In order to form some kind of stratification for pottery dating purposes the layer was divided into three separate false levels (see sections). The medieval pottery on Figs. 10, and 11 are separated according to this.

Medieval 1

No fragments drawn; all body sherds.

¹ For an archaeological parallel to this late-medieval urban contraction see R. L. S. Bruce-Mitford, 'The Archaeology of the Bodleian Extension', *Oxoniensia* 4 (1939), 91.

Medieval 2

9. Rim in hard gritty fabric.
 10. Thumbed base in light beige hard fabric.
 11. Handle in smooth white fabric.
 12. Small cooking pot in hard gritty pink fabric.

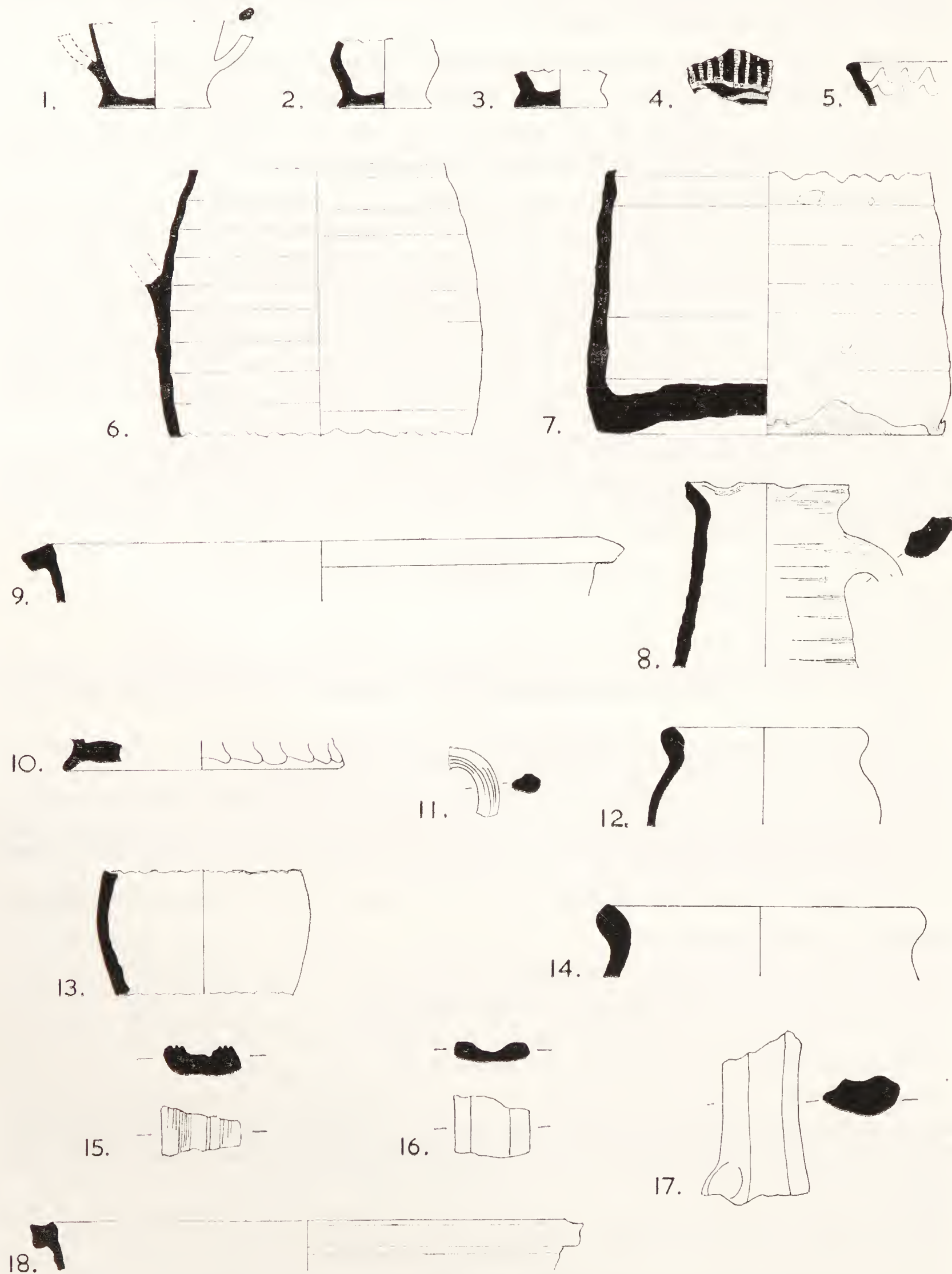
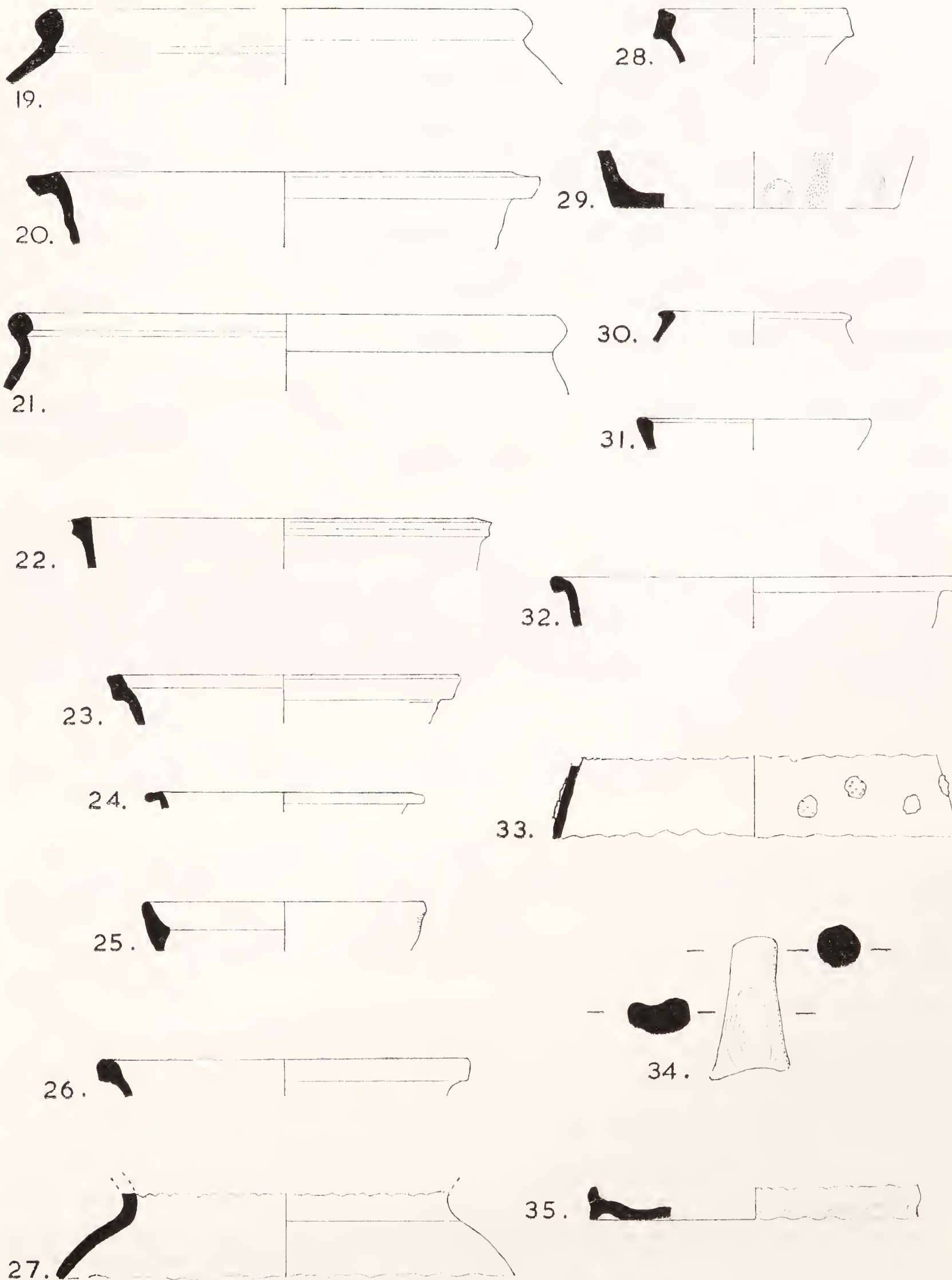


FIG. 10. Pottery 1 to 5 from sixteenth-century levels. Unstratified pottery, 6, 7 and 8. Medieval pottery from level 2: 9 to 18 ($\frac{1}{4}$).

13. Body sherd in hard orange fabric with brown/purple glaze.
 14. Rim in hard pink gritty fabric, grey inside.
 15. Handle in hard grey/pink fabric.
 16. Handle in soft pink fabric, grey inside.
 17. Handle in hard gritty red fabric with purple glaze.
 18. Rim, buff on the outside, grey gritty in section.

FIG. 11. Medieval pottery from level 3 ($\frac{1}{4}$).

Medieval 3

19. Cooking pot rim in hard gritty grey fabric.
20. Bowl rim in hard gritty pink fabric with a splash of yellow glaze.
21. Cooking pot in pink gritty fabric.
22. Bowl in hard pink gritty fabric.
23. Bowl in buff gritty fabric.
24. Small bowl in buff and black gritty fabric.
25. Small bowl in salmon-pink gritty fabric.
26. Bowl in buff gritty fabric.
27. Body sherd in salmon-pink outside, hard black fabric.
28. Jug in hard smooth grey/pink fabric.
29. Base in salmon-pink fabric with patches of grey gritty.
30. Small storage jar in salmon-pink gritty fabric.
31. Small bowl in pink and white gritty fabric.
32. Bowl in hard pink gritty fabric.
33. Body sherd, pink fabric outside, white inside, red decoration.
34. Handle in salmon-pink and grey gritty fabric.
35. Base in salmon-pink outside, grey inside, gritty fabric.

DISTRIBUTION OF POTTERY FROM LOCAL KILN SITES

Late medieval and post medieval period, 1450–1550; 1550–1780.

Considerable research has been done into pottery of these two periods in the Wrenthorpe area (1½ miles north of Wakefield), where 20 kiln sites have been investigated. This has revealed dating evidence for these periods.¹

Medieval 1066–1450.

Little is known about pottery of this period. The nearest known kiln sites are at Upper Heaton, near Huddersfield.² Documentary evidence exists for kilns at Sandal (1 mile south of Wakefield), and Alverthorpe (1 mile north of Wakefield), also at Flockton (7 miles west of Wakefield). During 1970 attempts were made by the writer to locate the kilns at Flockton. Two separate sites referred to on a tithe award map of 1843 were investigated (kiln croft and kiln close); it was found that they had been outcropped for coal in 1945 and 1926 respectively.

¹ P. C. D. Brears, 'Excavations at Potovens near Wakefield', *Post Med. Arch.* 1 (1967); K. S. Bartlett, 'Excavations at Potovens 1968,' *Post Med. Arch.* 5 (1971), and K. J. Woodrow, 'Excavations at Silcoates', *Post Med. Arch.* 5 (1971).

² T. G. Manby, 'Medieval pottery kilns at Upper Heaton', *Archaeological Jnl.* 121 (1964), 70-110.

THE ABBOT OF SELBY'S FINANCIAL STATEMENT FOR THE YEAR ENDING MICHAELMAS 1338

By G. S. HASLOP

Before 1338 there would have been some examination at Selby of the various annual account rolls made up by the Abbey's obedientiaries and lay officials. However, when those for that year, ending at Michaelmas, were to hand, the constitutions of the bull '*Summi Magistri*' had come into force, requiring, among other things, that the superiors of Benedictine houses should present a statement of the year's financial business to a specially-summoned chapter.¹ For this year, therefore, this abstract of accounts would be compiled with special care, and that it is the only Selby record of its kind to survive is probably because of being copied, for present and future reference, into a register that later attracted antiquarian interest.² It is at best a copy, but apparent errors are not too difficult to see, if not always easy to rectify. The nature and extent of the annual audit procedure at Selby are not known and the single reference encountered is not very informative.³ It is presumed that there was each year some scrutiny of the accounts of keepers, receivers and the like by the obedientiaries concerned, whose own rolls would be similarly examined at Michaelmas when abstracts would be made for the superior's annual statement.

By the time of John Heslington (1335–42) in whose abbacy the statement under review was made, the temporal possessions of the Selby monastery had become settled in the form that was mainly to endure to the end. All were held in frankalmoign though it seems that this had often to be demonstrated whenever the Kings of England looked for aids.⁴

The home estates extended westward from the Abbey and comprised the manors of Selby with the important grange at Stayner, Brayton with its members Burton (Hall) and Lund, Thorp Willoughby, Hambleton, Monk Fryston and Hillam.⁵ There was also an interesting small manor called Over Selby, the '*ufer Seleby*' of c. 1030,⁶ the Minor Selby of Foundation time and in the fifteenth century referred to as '*alias Bondgate*'.⁷ Its extents and boundaries are not known but separate courts were held there and the survey preceding the enclosures of c. 1800 show all copyhold to be in this area.⁸ Near to these home manors the Abbey had also parcels of varying amounts of land in Gateforth,

¹ See D. Knowles, *The Religious Orders in England*, Vol. 2, pp. 3–4.

² Made in the abbacy of John de Heslington (1335–42) it was copied into the register of Abbot Shirburn's time (1369–1408) about 1370. The bulk of this register is bound up as ff. 97–162 of *Cotton Ms. Vitellius E XVI*, a detached section being preserved as ff. 185–200 of the *Cleopatra D III* of the same collection. The statement is in ff. 118–120 of the former.

³ '*In stipendio Willelmi Waltham cariantis lectum domini Prioris tempore auditoris compotorum tenentium ibidem*' the last word not connected with any place. Bursar's Account c. 1484. DDLO/20/10 in E.R. County Record Office.

⁴ The most informative record is that on ff. 48r–49v of *P.R.O. DL.42.8* (Abbot Gaddesby's Register) in connection with the knighting of the Black Prince.

⁵ Records, not continuous, of the Court of Selby with its members of Brayton, Thorp Willoughby, Hillam, Hambleton and Monk Fryston for the period 1322–1915 lie in the East Riding County Record Office. (DDLO/21/10 etc. See Brief Guide, p. 33). There are also other such records in the Westminster Diocesan Archives (Se/CR/1–46). An Extent of Monk Fryston, Hillam and Hambleton forms part of Add. Ms. 36579 of which a printed translated version is to be found in *Record Series, Miscellanea* iv, pp. 39–72. There is also an undated rental of Monk Fryston in the Westminster Archives (Se/Ac/24). Part of a rental of Brayton is on ff. 159v–160r of *Vitellius E XVI* and of Burton (Hall) on f. 161 of the same. There are also imperfect rentals of Brayton in the Lincoln Archives and in the *Towneley Transcript* (f. 40). This last is a seventeenth-century transcript of a fourteenth-century lost original made by Christopher Towneley (See *D.N.B.*) It lies in the Archives Department of the Leeds City Libraries.

⁶ *Early Yorkshire Charters*, i, p. 21.

⁷ Bursar's Roll 1531–2. E.R.C.R.O. DDLO/20/13.

⁸ Records of this court for period 1399–1410 are in E.R.C.R.O. as DDLO/18/1.

Burn, Birkin, Fairburn, Little Fenton and North Milford. The importance of the Leeds–Selby road to the economy of the home estates is well illustrated by the obligation of the men of Monk Fryston to carry millstones from the Leeds crossroads to their village from where the tenants of Hambleton had to complete the carriage to the water-mills at Selby. There was also available a water route along the Millpond of Selby, the head of which may sometimes be made out in times of flood. The western terminal of this waterway was in Hambleton.¹

Some nine miles to the south of Selby the manor of Rawcliffe belonged to the Selby monks who also possessed parcels in several villages on, or not too distant from, the rivers Aire and Ouse, as Haddlesey, Whitley, Hensall, Balne, Pollington, Heck, Carlton, Gowdall, Cowick, Snaith, Hook, Goole, Swinefleet, Reedness, Whitgift, Ousefleet, and near the Trent–Ouse confluence, Adlingfleet. Eastoft, by reason of the ancient shifts of the Don, lay partly in Yorkshire and partly in Lincolnshire. The river route along the Aire and Ouse was much used for the carriage of produce, especially turves from Rawcliffe.²

Elsewhere in the West Riding, Selby Abbey possessed the manor of Acaster Selby (not too well evidenced), that of Stainton-in-Craven, perpetually leased to the Cistercian abbey of Sawley for an annual pension of £2,³ properties in Chellow (Bradford), Middlethorp near York, the city of York, East Ardsley and a mill at Sitlington near Wakefield.⁴

The Selby estates in the East Riding were made up of Selby Waterhouses⁵ (on the opposite bank of the river to Selby), the small manor of Gunby and lands in Barlby, Osgodby, Brighton, Menthorne (par. Hemingbrough), Stillingfleet and, on the Market Weighton road, in North Duffield, Foggathorpe and Holme upon Spalding Moor. The Abbey also held the custody of the manor of Kelfield, that is, it was held of the abbot by the family of Kelfield by priority, homage and fealty with service of twenty shillings a year and suit at the court of Selby once in the year.⁶

The chief estates in Lincolnshire were centred on Crowle⁷ and extended along the west bank of the Trent. To the west of Crowle lay vast stretches of waste and marsh which made communications difficult especially with the Selby area, so that when time did not compel, the water route along the Trent and Ouse was more convenient.⁸ Elsewhere in this county the Selby monks were in possession of lands in Redbourne, Waddingham, Gunness and Osgodby-in-Lindsey and at Humber mouth the manor of Stallingborough.⁹

On the borders of Northamptonshire and Leicestershire the Abbey was in possession of the manor of Stanford-on-Avon made up of Stanford, *Doune* (now Downtown Hill) in the first named county and *Stormesworth* (lost) together with a parcel of Husbands

¹ In 1357 the buyers of the underwood of the *Esthagg* of Hambleton were granted right of way to the *Paradislendyng* in that village and so along the Millpond and Kirkdyke to the *Herynghousgarth* at Ousegate End. (PRO.DL/42.8, f. 81r.) Requests for grants of licences to servants of the Archbishop to carry timber from his woods at Scalm along the Millpond to the Ouse are found frequently in the Selby and Diocesan Registers.

² In 1404–5 the Granger accounted for 28 boatloads of turves from Rawcliffe for the use of his office alone. The Bursars' accounts of the fifteenth and sixteenth centuries show clearly that carriage by water (now mainly of tithe corn) was general.

³ *Coucher Book of Selby*, Vol. 11, p. 340.

⁴ In 1448 this mill was derelict and untenanted. (Sacrist's Account, *Add. Charter* 45854).

⁵ Court Rolls for the period 1323–74 are in E.R.C.R.O. as DDLO/23/1.

⁶ For which see *Early Yorkshire Charters*, v, *Honour of Richmond*, 11, p. 58.

⁷ A valuable description of the descent of this manor with sokelands in Amcotts, Westwood, Garthorp, Luddington, *Marae*, Waterton, Butterwick and Belton, of manor court procedures and of surviving records is given in *Archivists' Report No. 4 of the Lincolnshire Archives Committee*, pp. 13–20.

⁸ From the Bursars' accounts it is plain that almost without exception wines, fish and other commodities bought at Hull or York, corn bought in Holderness and the tithe corn and the like from the villages on the Trent, Humber, Ouse and Aire were carried by water. In the late fifteenth century the Abbey's fleet consisted of a large barge, a small ship, and two '*Cathes*' presumably flat punt-like vessels. The Ferryboat too was often pressed into service for local work as the carriage of faggots or hay from Ross-carrs only some mile and a half down river from Selby.

⁹ Reference to a court here has been encountered (*Cleopatra D III*, f. 198r.) but all records seem to be lost.

Bosworth in Leicestershire.¹ The manor house lay some four miles from Watling Street. In this same county the Selby monks had a manor at Queniborough, some six miles northeast of Leicester and close to the Fosseway to Lincoln. In Nottinghamshire they had land in West Drayton.

In addition to the profits deriving from these estates there was considerable income from the spiritual possessions of Selby Abbey. According to the figures of the registered version of the Taxation of Pope Nicholas referred to later, which had been revised to include the church of Brayton appropriated in 1348, three sevenths of the total valuation came from the spiritualities. In Yorkshire their value exceeded that of the temporalities by nearly a third. By 1338 the churches of Crowle, Luddington, Redbourne and Stallingborough in the Lincoln diocese had been appropriated and that of Adlingfleet in York.² The church of Brayton was to be appropriated in 1348 while that of Stanford-on-Avon remained a rectory till 1441.³ The early history of Snaith church with its chapels at Carlton, Whitgift, Hook and Airmin is rather obscure. It seems to have been in an appropriated state from the earliest monastic times, no vicarage ever being ordained. Since 1285 at least the cure had been principally served by two resident monks of Selby, one of whom came to be known as the Prior. In the second half of the fourteenth century chapels were created at Swinefleet (dependent on Whitgift) and at Rawcliffe where it seems the abbots of Selby took their recreation at this time. The origins of the parish church at Selby are not easily to be seen; the burials on Church Hill seem to indicate at least a pre-Conquest cemetery.⁴ The Legendary History however makes no mention but relates how the founder abbot erected an oratory on the site which became the Chapel of St. Germanus, the parish church until the conventual church came so to be used after the Dissolution. The font was anciently in this chapel but by 1276 it had been on unknown authority taken into the Abbey Church.⁵ The point was often made that the parish church at Selby was not a church but a chapel and in 1410 was so formally defined as being dependent on Snaith.⁶ There is, however, no evidence of this dependency and altogether it seems unlikely. There is a presumption that the parochial state of the Selby church was suppressed at the Foundation, full status not being re-assumed by royal Letters Patent until some eighty years after the Dissolution. Also among the spiritualities were an annual pension from the rector of Averham in Nottinghamshire⁷ and a small income as a portion of the tithes of West Tanfield, the only possession of the Selby monks in the North Riding.⁸

The abbot's statement of 1338 is one of four known evaluations of the Abbey's annual income; the others being *The Taxation of Pope Nicholas IV* (1291), an estimate of the moneys likely to become available during the years 1372–3 to meet the common expenses⁹ and the *Valor Ecclesiasticus* before the Dissolution. As seen later, comparisons are not

¹ An extent of Stanford and its members together with one of Queniborough made in 1321 form part of *Add. Ms.* 36579.

² Copies of the ordinations of these vicarages were placed together in the *Coucher Book*. (Printed Vol. I, pp. 342–8.)

³ In 1343 Thomas, Bishop of Lincoln, confirmed the right of Selby Abbey to the tithes of their demesne of Stanford. (DL/42.8, f. 5v.) The list of the incumbents of this rectory (See Nichols, *History of the County of Leicester*) suggests it was reserved for influential clerks and there is a suspicion that it was at times bandied about. In 1389 for example the Duke of Lancaster asked that his Treasurer be presented to this church his Chancellor having resigned it to this end. (*Cotton. Cleopatra D III*, f. 196r.)

⁴ W. W. Morrell, *History of Selby*, p. 193 note; *V.C.H. Yorks.* ii, p. 107, where dated as probably late Anglo-Saxon. E. T. Leeds in *Archaeology of the English Settlements* has assigned the burials to the Pagan Anglian Period and the site is so marked on Fig. 14 of C. Fox, *The Personality of Britain*, (1947 ed.).

⁵ *Reg. Giffard*, f. 145; Printed *Selby Coucher Book*, ii, p. 9.

⁶ *Monasticon Eboracense*, p. 401.

⁷ Shortly after 1100 Gilbert Tison gave to the Selby monks the tithes that he had in 'Aigruna'. (*Early Yorkshire Charters*, xii, p. 47). These at a time unknown were commuted to an annual pension of £2. Averham appears in the *Valor Ecclesiasticus* as Arom.

⁸ Some 6½ miles northwest of Ripon and in the North Riding. In the time of an Abbot Richard (1221 or 1222–44) the Abbey's portion of the tithes here was leased for a life term to the parson for 20 shillings a year for lighting the conventual church. (*Towneley Transcript*, No. 137). Here are examples of the pension achieved by the granting away of tithes in perpetuity, and of the portion when possession was retained and the same leased for terms of years.

⁹ *Cotton Ms. Vitellius E XVI*, f. 124v.

easy. Also available are three '*status monasterii*' made in 1322, 1342 and 1368¹ which, in respect of livestock and the state of the general debt may be set against the details given in the statement of 1338.

In the translation which follows apparent errors have been noted and, where possible, amended. Except for money amounts the compilers of the statement used the Long Hundred (*maius centum*) of six score,² and where necessary all figures have been converted to that of five score. If the original document had the usual marginal titles to the sections they were omitted at registration. In recording the decrease in the numbers of livestock no distinction was made between those dying from age, accident or disease and those slaughtered for the table.

THE ACCOUNT OF THE ABBOT OF SELBY FOR THE YEAR ENDING MICHAELMAS 1338
OF ALL MONEYS PERTAINING TO THE COMMON EXPENSES OF THE ABBEY MADE
INTERNALLY BY THE OBEDIENTIARIES AND EXTERNALLY BY THE SERVANTS AND
KEEPERS OF GRANGES IN WHOSE VARIOUS ACCOUNTS FULLER DETAILS ARE TO
BE FOUND.

Firstly he answers for 1391 $\frac{3}{4}$ quarters of wheat³ received from all the issues of the Abbey's granges. Of which he accounts for 1287 $\frac{3}{8}$ qrs. expended in sundry liveries. And so 6 $\frac{3}{8}$ qrs. remain in the Granary⁴ and by estimation 98 qrs. in the granges.

Also for 898 qrs. 2 $\frac{1}{2}$ bus. of rye and maslin similarly received. Of which 611 qrs. $\frac{1}{2}$ bus. expended. And so 48 $\frac{1}{4}$ qrs. remain in the Granary and by estimation 239 qrs. in the granges.

Also for 624 $\frac{5}{8}$ qrs. of beans and peas. Of which 372 $\frac{1}{8}$ qrs. expended. And so 6 qrs. remain in the Granary and by estimation 246 $\frac{1}{2}$ qrs. in the granges.

Also for 1513 qrs. of barley and dredge. Of which 801 qrs. 6 bus. 1 peck expended. In the kiln (*fund-racione*) are 711 qrs. 1 bus. 3 pecks. Totals balance.

Also for 2067 qrs. 5 $\frac{1}{2}$ bus. of oats. Of which 1074 qrs. 2 $\frac{1}{2}$ bus. expended and in the kiln are 973 qrs. And so 20 $\frac{1}{2}$ qrs. remain in the Granary.⁵

Also for 874 $\frac{1}{2}$ qrs. of malt of barley and dredge. Of which 712 qrs. 5 $\frac{1}{2}$ bus. expended. And so 161 qrs. 5 $\frac{1}{2}$ bus. remain in the Granary.⁶

Also for 1214 $\frac{1}{8}$ qrs. of malt of oats. Of which 902 $\frac{1}{2}$ qrs. expended. And so 311 qrs. 5 bus. remain in the Granary.

Total of Grain Receipts this year – 6360 . . .⁷

He also answers for 116 work-horses (*affris et equis carectariis*) of which 10 died or were sold. So 106 remain of which 46 male.

Also for 6 three-year-old foals of which 3 male and 11 two-year-olds of which 1 died so leaving 10 of which 5 male.

Also for 18 yearlings of which 10 male and 18 newly born foals (*de exitu*).

Also for 214 oxen of which 26 died or were sold leaving 188.

Also for 11 bulls and for 155 cows of which 14 died or were sold so leaving 141.

Also for 60 young oxen (*boveti*) of which 23 died or were sold so leaving 37 of which 22 male.

Also for 63 calves (*bovuli*) of which 3 died or were sold so leaving 60 of which 30 male. Also for 72 calves of one year of which 8 died or were sold leaving 64 of which 28 male; and for 108 newly born calves of which 11 died or were sold so leaving 97.

He also answers for 2085 sheep (*multones*) of which 702 died or were sold so leaving 1383.

Also for 1242 ewes (*oves matricēs*) of which 459 died or were sold leaving 783.

Also for 717 sheep of the second year (*hogastri*) of which 478 died or were sold or paid as amercement (*admentione*) so leaving 239.

Also for 633 newly born lambs all of which remain.

¹ The first, of 1322, is on f. 153 of the *Register of Archbishop Melton* in the Borthwick Institute. The second is printed in *Coucher Book of Selby*, Vol. ii, pp. 364–5, from DL/42.8, f. Ir & v. and the third is on f. 97 of *Cotton Ms. Vitellius E XVI*.

² The first paragraph indicates the use of the Long Hundred. In other accounts this is not always so but the use of 'V^{xx}' is a pointer to this kind of reckoning.

³ Ms. reads 'MCLXXI', that is, 1391 by the hundred of five score.

⁴ This would be the Great Barn, now totally destroyed. It lay across the end of the modern James Street which is in line with the site of the Abbey Gates in front of the Londesborough Hotel. In 1404–5 the Granger repaired a pavement between the Gates and *Le Malthous* which would be near the Great Barn. '*in grangiis*' is translated as 'in the granges', probably meaning the various barns or store-houses on the estates.

⁵ Apparent error of 1 bus.

⁶ Apparent error of 1 bus.

⁷ This note is in a different hand and would be made some time after the time of registration (c. 1370) and is damaged. The Ms. reads 'V^m III^c . . . ' that is 6360 and more in modern hundreds. No connection with the grain account is apparent and it is likely the note refers to a year later than 1370 when some official consulted the registered copy of the statement of 1338.

He also answers for 330 pigs of which 161 died or were sold leaving 169.

Also for 223 young pigs of which 83 died or were sold leaving 143.¹

He also answers for 6 sacks of wool by estimation from last year; for 2480 fleeces weighed (*ponderatis*); for 311 fleeces from Queniborough from this year and last and not yet weighed, and for 27½ stones from the wool tithe of Marshland.

He also answers for £276 3s 2d from the sale of grain, livestock and other commodities of which fuller details may be found in the accounts of servants and grange keepers.

Also for £1075 18s 0½d from the assised rents and other issues pertaining to the common expenses of the Abbey through the Bursar, Extern Cellarer and Kitchener as is more fully shown in their respective accounts.

TOTAL OF INCOME £1352 1s 2½d

Of this he accounts for £381 8s 3d in sundry expenses and other outgoings in the manors and granges, and for £862 13s 9¾d.² in the various expenses of the obedientiaries as shown in their respective accounts.

TOTAL OF EXPENDITURE £1244 2s 0¾d

Thus £107 19s 1¾d is owed the Abbey by the obedientiaries. The King also owes £30 for 5 sacks of wool.

TOTAL OWED THE ABBEY £137 19s 1¾d

The Abbey is bound to sundry creditors by reason of loans made both in the time of the present abbot and of his predecessors as follows;³ to the executors of the will of Adam de Hoperton in £40; to the executors of William de la Mare in £20; to the executors of Peter de Ludyngton in £20; to John de Camera in £13 6s 8d; to the Collectors of the Tenth in the time of Brother William de Goldale in £9; to Geoffrey de Scrop in £60; to various pensioners as shown in the Bursar's account in £16 8s 4d; to John de Hamelton in £25; to Jordan de Puddesay in £10 and to Thomas de Scardeburgh in £6 13s 4d.

TOTAL OF DEBT £220 8s 4d

In addition the following sums are estimated; £10 8s 9d derived from 104⅔ qrs. of sub-standard (*debilis*) wheat, shown as remaining in the grain account given earlier, at 2s the qr.; £23 18s 9d similarly from 287¼ qrs. of rye at 1s 8d the qr.; £21 0s 10d from 252½ qrs. of beans and peas at 1s 8d the qr.; £1 3s 8d from 20½ qrs. of oats at 1s 2d the qr.; £17 10s 6d from 161 qrs. 6½ bus. of malt of barley and dredge at 2s 2d the qr.;⁴ and £24 5s 5d from 311⅝ qrs. of malt of oats at 1s 4d the qr.⁵ Also £78 from 18 sacks of wool the price per sack being £4 6s 8d and no more on account of doubtful quality (*propter lanam refutandam*).

IN SURPLUSAGE the Abbey has £90 12s 0¾d⁶

TOTAL SURPLUSAGE excluding livestock £90 12s 0¾d

This statement of 1338, beyond making general reference to the accounts of the obedientiaries and estate officials, throws little light on what must have been the rather involved reckonings that preceded its compilation. It has to be envisaged that shortly after Michaelmas numerous local accounts from the estates and parishes would begin to reach the important obedientiaries to whom the profits pertained. Lesser officials like the Infirmarer made up their accounts at Whitsuntide. As instanced by the only one published⁷ good use was made of tallies in these local accounts. The obedientiary in preparing his roll seems to have been aware that his reckonings would in due course come under scrutiny, as evidenced by the variety of citations in addition to the usual references to

¹ Apparent error of 3 piglets.

² Ms. reads 'DCCCClxij li.' the scribe in error writing an extra C.

³ Adam de Hoperton appears as Commissioner of Sewers in 1332 (*Cal. Pat. Rolls, 1330-4*, p. 229). In 1319, when it seems diocesan control in this matter obtained, Archbishop Melton granted licence to the Selby monks to sell corrodies to an Adam de Hoperton and his wife Beatrice, and also to Jordan de Pudesay mentioned in the statement as a creditor. (*Reg. Melton*, f. 136r). Adam's executors were owed 20 marks in 1342 and Jordan 10 marks. (*Coucher Book of Selby*, ii, p. 365). In this year the executors of Peter de Ludington were owed £20 (*Ibid*). William de la Mare appears *passim* in *Yorkshire Deeds* and is described as of Ousefleet. The Geoffrey de Scrop (the *de* being unusual) cannot have been the Geoffrey who was L.C.J. of the King's Bench 1324-37 since he is not designated knight, but rather a Geoffrey le Scrop, a plaintiff concerning lands in the Goole area in 1331 who is not so designated. (*Yorks. Fines, 1327-47*, p. 37).

⁴ It is not clear whether this is the actual malt or corn suitable for malting. In the earlier grain account this surplus is said to be in the Barn.

⁵ In the Ms. the prices per quarter or sack are underlined, a practice which sometimes indicates error. The editor of the Abingdon Rolls (*Camden Society, New Series*, Vol. 51) found it meant that the sum so marked was not to be taken into account. In Selby accounts no systematic use is apparent except often for emphasis. The only errors apparent in this account are in the value of oats being 3d too little and in that of malt of oats.

⁶ The various amounts add to £98 7s 11d no reason for the error being seen. The total value of the surplusage therefore, exclusive of live-stock, would be £176 7s 11d.

⁷ The Account of the Proctor at Whitgift 1420-1 in *Record Series, Miscellanea vi*, pp. 41-52.

the account of the preceding year or to the Rental.¹ From the latter the detailed income from assised rents was copied, often before the subsidiary accounts were to hand, in fact before payments had actually been made. When for any reason rents, in whole or in part, were not paid the obedientiary asked for an 'allowance' (*allocationem*) in respect of the deficiencies which were added to his expenditure. Sometimes the accountant would only enter the moneys actually received, when of course there would be need for the seeking of 'allowances'. Often quite considerable sums were handed over to another obedientiary as '*resoluciones*' and occasionally adjustments were made after the account had been balanced. The Sacrist in 1448, for example, after his account had been balanced was charged with a sum in respect of wine and a second balance made, and then discharged of another sum similarly expended which was then charged to the accounts of the Bursar and Hospitaller, so that a third balance had to be set down. Again in 1476 the Pittancer sought 'allowance' for the Oxford Scholar's clothing which the Bursar usually provided and for that of the Ferryman which had not this year, in accordance with his indenture, been provided by the 'dominus', presumably the Bursar acting for the Abbot and Convent. The totals of income or expenditure usually set down in prominence in these accounts are not what they seem and it was instances like these that led the editor of the Abingdon rolls to wonder how instructive some rolls really are. However, leaving aside whatever audit was made there must have been considerable activity in abstracting and totalling before the abbot's statement was ready for presentation.

This is no place for any comparison with modern accounting methods² but it is noticeable that no balance from the previous year is mentioned and there is nothing to indicate how the £107 in the hands of the obedientiaries or the presumed income from the surplusage would be accounted for in the following year. To rely on the evidence of a single statement of this kind may be rash but it seems likely that there was no carrying forward of balances and that the reckonings were solely concerned with the business of the year in question. The unspent income and the presumed income from the sale of surplus commodities would of course be accounted for by the obedientiaries in the year following.

It is not known how the figures of the gross income or the total of expenditure were arrived at. To have calculated the actual moneys received or spent by each accounting monk would entail so many adjustments on account of '*arreragia*', or '*excessus*'³ and cross-checkings in respect of '*allocationes*' or '*resoluciones*' as to raise serious doubts as to the practicability. The alternative was simply to add the final totals of income and expenditure as set down on each account roll and these, as shown earlier, may deceive. The monks would not be conscious of the doubts and perplexities which trouble the modern student of their accounts.

In view of the condensed nature of the statement of 1338 little analysis of the sources of income or items of expenditure is possible. Some £276 (just under a fifth of gross income) was achieved from the sale of grain, livestock and other commodities from the estates. Among the last we should expect to find in the various accounts oaks, timber and underwood, bark for the tanners, reeds for thatch, the draff of the Brewhouse and the waste of the cellars and kitchens. As to expenditure the administrative costs on the estates were some 28½% of gross income and the common expenses used up 80% of net income.

The position at the end of the financial year, and a plain exposition of this would form the core of the business of the specially summoned chapter, was as follows; the sum of £107 19s 1¾d was in the hands of the obedientiaries unspent, wool stocks were valued at £78 and surplus grain and legumes at £98 7s 11d (though the manuscript in error gives

¹ As '*in pagina consignata cum manu*'; '*ut patet per parcelas examiuatas*'; '*per unam billam examinatum ac inter memoranda huius anni remanentem*'; '*ut patet per parcelas et literas scriptas separatim in libro Bursarii*.'

² For which see D. Knowles, *op. cit. supra*, p. 320.

³ The obedientiary roll first states the '*arreragia*' or unspent income of the previous year (if such was achieved) and this is included in total of income. The '*excessus expensarum*' of the previous year where applicable is added together with the items of expenditure.

the total value of the surplusage not including livestock, the same figure as that of grain and legumes only and that not correctly). These together with £30 owed by the King (probably a loan) amount to £314 7s 0 $\frac{3}{4}$ d against which is to be set the general debt of £220 8s 4d.

The size of the Abbey's debt at any one time reflects in large degree the extent of the anticipation of income, commonly by the raising of loans, the sale of annual pensions or occasionally the grant of the latter to avoid repayment of the first. Other devices were the sale of corrodies, simply or with attached pension, and unduly large wood sales. It may be said that, in the better documented fourteenth century at least, ready money was seldom to hand even for the payment of common expenses as the buying of wheat, or payment of Tenths and the like to the King, or the cost of property repairs. The debts recorded in the three 'status' mentioned earlier compare with that of 1338 as follows:—

1322	1338	1342	1368
£551 8s 0d	£220 8s 4d	£172 14s 0d	£364 13s 4d ¹

In 1410, two years after the death of Abbot Shirburn who had taken over the debt of 1368, the Abbey's debt exceeded £1040 and £200 of annual income were committed to the payment of pensions and corrodies.²

The amount of debt need not reflect adversely on the efficiency of the abbot in office when it accumulated. An apparently healthy state could, for example, be achieved by neglecting the maintenance of properties, of drainage systems on the estates or of the fabric of the monastery. The debt in 1322 would almost certainly be connected with the rebuilding of the Old Norman choir³ and it is quite likely that the increase of the debt in the abbacy of Geoffrey de Gaddesby was the result of drainage works in Marshland and elsewhere and continued work on the rebuilding project.⁴ As to the large debt of 1410 it seems more rewarding to seek the reasons for the necessity to anticipate income to such an extent and to mortgage a quarter of annual income. It seems reasonable to conclude that extraordinary expenses were incurred during the long abbacy of John de Shirburn, not by extravagant living within the monastery or by maladministration, but rather by work on the fabric of the Abbey, on certain drainage works⁵

¹ This increased by £129 in the five months vacancy before the installation of Abbot Shirburn on 1 May 1369.

² *Cal. Pat. Rolls, 1408-13*, p. 244.

³ This project started c. 1280 and seems for the most part to have been completed in the time of Abbot Gaddesby. The comparatively small debt of 1338 and the still smaller one at Abbot Heslington's death suggests that little was done in this abbot's years of rule.

⁴ Morrell (*op. cit.*, p. 86) saw Abbot Gaddesby as one of the earliest of English engineers and credited him with drainage works near Rawcliffe. He also had much work done on the important sewer called the *Mardik* which drained the waters of the Crowle area to discharge into the Trent near Amcotts. In 1350 it was presented that he had dammed and diverted these waters so as to flood 3,000 acres of the Lorship of Hatfield (*Towneley Transcript*, No. 232). The petition of 1346 seeking papal licence to appropriate the church of Brayton describes how at this time over £200 was spent on drainage works which were swept away by floods before they were completed. (*Cal. Papal Reg. Petitions*, Vol. i, p. 117).

⁵ The finishing touches to the rebuilding of the choir seem to have been the paving of the north aisle there and the raising at its head of an altar of St. Cuthbert in the last decade of the fourteenth century. (*Vitellius E XVI*, ff. 97v. and 136r.). In 1375 the Selby convent had sought and obtained licence to crenellate and wall, presumably with serious intent (*Ibid.*, f. 151v. and *Add. Charter*, 45829). In 1377 Abbot Shirburn in his own person took a thirty-year lease of a quarry at Huddlestone (*Vitellius E XVI*, f. 152r.) and was concerned with the opening of another at Monk Fryston in 1389. (*Ibid.*, f. 7v.) C. C. Hodges in his *Architectural History of Selby Abbey* has assigned to these years the addition of a battlemented parapet to the two west towers and the west wall of the nave, the gable then lying behind the walk thus formed. Comparison of early nineteenth-century engravings with the present building shows how the alterations of 1873 and the raising of the west towers in 1935 have, from the historical point of view, spoilt the west end of the Abbey Church. W. Peck in his *Topographical History of Bawtry and Thorne* relates how Abbot Shirburn rebuilt in stone the wooden sluices at the head of the *Mardik*. In 1382 the tenants of the Duke of York from Thorne and Hatfield came to the banks of Trent and cast down these sluices so that for some time the tides ebbed and flowed at will. (*Vitellius E XVI*, f. 116r. and *Cleopatra D III*, f. 187v.) This raid, in which 200 men are said to have taken part, suggests that work was done about this time. A memorandum in the *Vitellius* manuscript cited above records the rebuilding of these sluices in stone in 1392 (f. 97v.) If this is the work mentioned above by W. Peck some difficulties followed, the sluices being considered too high and too broad.

and possibly by repairs to monastic property long neglected.¹

Inventories of the live-stock of the Abbey's estates were compiled in some detail and, judging from the few surviving records, formed part of the '*status monasterii*' made on the death of an abbot or when called for by the ordinary and in the abbot's annual statement. The details of the three known '*status*' and of the statement of 1338 are tabulated below.

LIVE-STOCK		1322	1338	1342	1368
Work-horses ..	..	124	106	110	14 mares (Rem. lost)
3-year-olds ..	..	7	6	7	10
2-year-olds ..	..	16	10	14	5
Yearlings ..	..	14	18	11	12
New foals ..	..	15	18	20	3
Horses in Stable at Stayner					
Mares ..	..	—	—	11	9
3-year-olds ..	..	—	—	6	2
2-year-olds ..	..	—	—	7	3
Yearlings ..	..	—	—	2	(lost)
New foals ..	..	—	—	5	3
Oxen ..	..	70	188	231	(lost)
Young Oxen (<i>boveti</i>) ..	..	31	37	56	23
Bulls ..	..	3	11	12	9
Heifers & Steers ..	..	103	124	81	58
Cows ..	..	57	141	158	105
Calves ..	..	44	97	152	117
Sheep. <i>Multones</i> ..	..	86	1383	909	696
<i>Oves matricies</i> ..	..	97	783	80	362
Of 2nd year					
(<i>hogastri</i>) ..	..	189	239	546	320
Lambs ..	..	—	633	—	—
Pigs ..	..	—	169	94	24
Young pigs ..	..	—	123	33	96
Sows ..	..	—	—	—	13
Boars ..	..	—	—	—	7
Young hogs (<i>hogrelli</i>) ..	..	—	—	104	

Most noticeable is the large increase in the number of sheep between 1322 and 1338 and this is in accordance with the trend throughout the country generally, of decreasing grain production from *c.* 1325 onwards accompanied by an increase in the sheep population. Between 1342 and 1368 (being the years of the abbacy of Geoffrey de Gaddesby) came the Black Death with its effects on estate administration, which are probably best regarded as emphasising the shortcomings of the old servile system and accelerating the process of change towards a more equitable agricultural economy.

Some difficulty in working the demesnes had probably been experienced earlier, for it is likely that Archbishop Melton's prohibition of the manumission of serfs by the Selby monks in 1322 had been occasioned by their efforts to make the old system work more smoothly.² This instance is isolated and it is not known whether further troubles were encountered. But it can be said that some six years after the worst of the plagues when the confusions had cleared somewhat, the Selby monks concluded that the direct exploitation of certain demesnes could no longer be achieved by servile labour. In 1355

¹ For example, between 1397–9 the Abbot's Chaplain, presumably on orders, saw to the spending of some £134 on repairs to buildings in the New Lane belonging to the Office of Kitchener and a further sum of £50 on various works including scouring a ditch and repairs to posts and bridges. (*Vitellius E XVI*, f. 124v.) There seems to have been long neglect by more than one obedientiary. The money was obtained by the temporary assignment of certain rents to the Chaplain and by the raising of loans.

² *Register of Archbishop Melton*, f. 208v.

a survey was made of the manor of Crowle which included the work services of certain tenants.¹ Similar action was probably taken in other places. Shortly afterwards, probably at Martinmas of that year, 85 acres of arable and pasture of the demesne of Crowle '*propriis nostris carucis nuper culte*' were leased for a term of 15 years.² No mention is made of the work services. At Michaelmas of the same year 96 acres of the demesne of Rawcliffe had been farmed out to an association of thirteen men for a similar term, with obligations to maintain ditches, banks, sewers, hedges and closes according to custom.³ At the same time the eastern part of the grange at Thorp was leased to two Selby men.⁴ They were permitted to ply a small boat on the Millpond but the taking of fish was forbidden. Included in the lease were seed corn, 2 cows, 2 carts, a complete plough and eight wains, all of which were to be handed back at the end of the term of 15 years. It is of slight topographical interest to note that the lands described and Thorp Hall, formerly the manor house, are now in the township of Selby. The date year of the manor of Queniborough is lost but the chronological order of the register at this time, and the placing of the copy of the lease in a group with three others, strongly suggests the same year of 1355. In this case the work services of the bondmen were included together with the use of their sons for certain tasks (as holding the plough) and provision was made for the holding of the manorial court by the monks' bailiff three times in the year.⁵ The figure of the first year's rent is lost, but that for the next nine years was to be 12 marks per annum and £10 for the last five of the fifteen years term. A reference to the state of the lands and buildings 'as they were in 1347' suggests that this manor had last functioned more or less normally in that year and the scaled rents that recovery had been slow. In November 1355 land in Stallingborough with pasture and meadow appertaining, not described as of the demesne but certainly up to then worked by the monks, was leased to four men for a term of twelve years.⁶ In this instance the obligations of the lessees are not set down in the deed; they were charged to find out for themselves from other tenants.

As far as can be seen from available records, some twenty years were to pass before further action of this kind was taken and it may be presumed that the Selby monks in this period managed to work some of their demesnes still in hand by whatever servile labour could still be exacted and by day labourers. In 1377 the distant manor of Stanford-on-Avon was farmed out to an association of fourteen men for a term of 21 years. The manor-house was included in the transaction together with the arable demesne '*quas propriis suis carucis nuper excolebant*' the demesne pasture and meadow and, for an additional rent, the services of the servile tenants. Provision had to be made for such manorial rights as the pounding of waifs and strays or the taking of the principal chattel of a deceased bondman and the holding of courts. The lessees were also to provide the ancient hospitality afforded to abbots and others journeying to London and elsewhere and to monk scholars on their travels to and from Oxford.⁷ This manor in April 1396, that is, within the 21 years term mentioned, was again leased to three men, one of whom was Thomas Haxey who, as Abbot Shirburn's proctor to the parliament of January 1397, was to lay his well-known bill.⁸ For reasons not apparent and outside the scope of this note, the annual rent and the obligations to maintain in good repair were released to these men two days after the sealing of the grant of lease.⁹ The small manor of Gunby which appears to have been used as a country residence, had been the subject of a lease in 1375 and again in 1401.¹⁰ Thus by the end of the fourteenth century only the home

¹ *Towneley Transcript*, f. 38, No. 151.

² *PRO. DL/42.8 (Abbot Gaddesby's Register)*, f. 79r. The date clause was omitted by the register scribe.

³ *Towneley Transcript*, f. 31, No. 147.

⁴ *Ibid.*, ff. 31-2, No. 148.

⁵ *Ibid.*, f. 31, No. 149.

⁶ *Ibid.*, ff. 42-3, No. 146.

⁷ *Vitellius E XVI*, f. 152v.

⁸ *Cleopatra D III*, f. 197v. Haxey was later Treasurer of York. His tomb in the Minster was used to give security and solemnity to oaths and was a famous place for payments. (J. Raine, *History of Hemingbrough*, p. 19).

⁹ *Cleopatra D III*, f. 197v.

¹⁰ *Vitellius E XVI*, f. 151r. and f. 140v.

manors were being exploited and the farming out of Hillam, Monk Fryston and Hambleton apparently at some time before 1460 left the Selby demesne with lands in Thorp and Wistow (that is the lands described in detail in the survey of 1540) as the only one in hand.¹ The work was carried out by labourers paid '*per diem*' and sometimes according to contract (*ex conventionione facta*).

The abandoning of demesnes would presumably be accompanied by a decrease in the numbers of live-stock, unless the practice of including stock in leases, as in the case of Thorp mentioned earlier, was more widespread than records indicate. Unfortunately the figures that might have been of use in the 1368 *status* are lost.

Comparison of the four evaluations of Selby Abbey's annual income briefly mentioned earlier is made difficult by their differing purposes and methods of compilation and it is seldom clear as to what reprises have been deducted and what their nature was. In addition, ever present are the usual errors of reckoning in roman numerals and of their conversion to arabic, though these are more easily discerned. The unwisdom of taking as authoritative the figures of the Taxation of Pope Nicholas as set down in the Record Commission volume has been commented on as well as the futility of seeking from them the incomes of monasteries or benefices.² In this version the profits of the Abbey are assessed at £833 1s 3d but the value of Adlingfleet is in error and if adjustment be made the total is £720 1s 3d. In the register of Abbot Shirburn's time a consolidated version of the Taxation was made which includes the church of Brayton appropriated in 1348. The values in each deanery, and of each appropriated church, and the totals for each county are set down as well as the Tenth of each.³ The total value of Selby Abbey is given as £718 4s 1½d (though the details add to £717 11s 2½d) and the Tenth as £81 7s 1¼d, the items, however, adding to £71 17s 1½d. There is evidence that the first named was roughly the Tenth payable by the Selby monks to the Exchequer, at least in the second half of the fourteenth century. In 1370 Abbot Shirburn, in a petition seeking to be excused from a money loan demanded by Edward III, reminded him that Selby's share of the three-year Tenth recently granted by the Clergy of York amounted to more than £80,⁴ and in 1372 the sum of £86 was ear-marked for the same purpose.⁵ With all these errors and discrepancies it looks as if the inquisitors of 1291 assessed the annual value of Selby at c. £720 and that this, as regards the use of the Taxation by the Exchequer as a basis for tax assessment, was later amended by process unknown to c. £800. The Taxation was compiled at a time close to the peak of high farming, when the direct working of the demesnes would be yielding the highest profits, so that its figures ought to have borne some relationship to those of the abbot's statement of 1338, where the income after deduction of administrative expenses on the estates is given as £970 12s 11½d. There were no significant acquisitions of new properties in the intervening years to account for the difference, nor is there any evidence that certain spiritualities or other income sources were intentionally exempted. It seems that here is a further example of the assessment of 1291 not corresponding to actual income, comparable with those cited by Rose Graham.⁶

The account made in 1372 mentioned earlier (possibly after that year's business had been analysed in the abbot's statement) attempted to budget for the year ahead. Much is lost through damage to the manuscript, but the important totals remain and among the readable details is £52 10s earmarked for the payment of pensions and fees and £86 likewise in respect of a Tenth due to the Exchequer. During the year ending Michaelmas 1373 it was expected that the sum of £795 16s 10½d would become available from all

¹ Printed in *Coucher Book of Selby*, Vol. ii, pp. 349–52. There does not seem to have been a demesne at Brayton in the fourteenth century. In a fragment of a survey of this village all work services mentioned were owed to the Stayner lands, part of the Selby demesne. (*Towneley Transcript*, f. 142, No. 152).

² Rose Graham. 'The Taxation of Pope Nicholas IV,' in *English Ecclesiastical Studies*, p. 272, note 3, and p. 296.

³ *Cotton Ms. Vitellius E XVI*, f. 153v.

⁴ *Ibid.*, f. 99r.

⁵ *Ibid.*, f. 98v.

⁶ *Op. cit.*, p. 294.

ordinary sources, that is, exclusive of loans and other income anticipations. It was also hoped to achieve a surplus of £247 13s 6½d by limiting the common expenses to £548 3s 4d.

Various estimates have been made of Selby's annual income at the Dissolution, either by different assessments of reprises in seeking to arrive at the net income, or by reason of errors and discrepancies in the available sources.¹ The total income of the Abbey as set down in the version of the Valor printed in the Record Commission volumes is £819 2s 6¼d and the total of reprises as £89 9s 8d. The remaining figure of £729 12s 10¼d by a last minute amendment is increased to £733 12s 10¼d by the charging of the salary of the Lathom chaplain set down earlier as a reprise of the Bursar, apparently with the intention of removing it from the valuation. The inquisitors of 1535 were mainly concerned with assessing the annual income of Selby for taxation purposes and their commission included a charge to set down what deductions might properly be made. The reprises so listed in their valuation, without apparent exception, are all likely to be found somewhere or other in the various rolls made up annually by the obedientiaries, in other words they were regarded by these as forming part of the common expenses. What may appear therefore to the modern mind to be gross income would be seen by the accounting monks as that available to them in the ordering of their several businesses.

It is this concept of annual income, broadly defined as that becoming available each year from ordinary sources after payment of those administrative expenses necessary to achieve that income, which is more rewarding and more easily reckoned whenever chance is offered. It is preferable to other concepts as the basis of comparison whenever it is desired, for example, to set in proportion the general debt, the degree of income anticipation or the expenditure on alms or on books.

In spite of the differing purposes of the four evaluations of Selby's income mentioned earlier it seems reasonable to accept the figures of £970 for the year 1337–8, of £796 for 1372–3 and of £819 (seen as an average of preceding years) for the year 1535 as the available incomes for the years in question. The details of the Taxation of Pope Nicholas in its common form are not of much use, but the amended version presumably used in the Exchequer in the second half of the fourteenth century to assess the Tenth payable by Selby Abbey suggests a figure of slightly more than £800. The decrease of some 18% in income between 1338 and 1372 would largely be due to the abandoning of the direct exploitation of at least five demesnes. The difference between the income figures of 1372 and 1535 is not great and may be attributable to the rather tentative nature of the first assessment and the thoroughness of the enquiries preceding the latter.

It would then appear that, from the third quarter of the fourteenth century onwards, the annual available income of Selby Abbey may be assessed at slightly over £800 at best, and slightly under that figure in less prosperous years. The income figures of the statement of 1338 suggest that at the peak of high farming (say 1290–1300) it could have exceeded £1,000.

¹ See Morrell, *op. cit.*, p. 119. A modern estimate is £606 for Selby Abbey and £110 for Snaith Priory, both figures being net. In the valuation of 1540 however the 'sell or parsonage' of Snaith was said to be worth £8 a year over and above the £15 for the stipends of two parish priests and one chantry priest. (*Coucher Book of Selby*, Vol. ii, p. 353). The Valor shows the Bursar to receive some £89 from the parish of Snaith and it seems that the bulk of the profits of this extensive parish came to support the monastery at Selby. Indeed when weather disrupted agriculture in this area it was considered serious enough to seek for, and sometimes to obtain, relief from taxation.

THE ARCHIVES OF SELBY ABBEY

By K. G. T. McDONNELL

In 1963 Miss Beryl Holt contributed to a volume of *Miscellanea* in the Yorkshire Archaeological Society's Record Series an article on two obedientiary rolls of Selby Abbey.¹ With their publication all the principal archives which had belonged to the Abbey – and were known – were in print, although the whereabouts of some of the originals seemed unclear. The *Coucher Book* was in the British Museum,² but the *Historia Selebiensis Monasterii* was only known from a French 17th-century collection,³ while four of the account rolls noticed by Miss Holt, which had been in Lord Londesbrough's possession in 1867, had by 1890 been put 'at the disposal' of the Society, and in 1891 were in the hands of Canon Raine.⁴ Apart from these sources there seemed to be little else, apart from some strays in the principal national repositories.

Much, however, remained in the shadowy realm of story. No one knew where Labbe had found the *Historia* but one copy was said to be in the hands of the French Benedictines, although no abbey was specified.⁵ Perhaps it was once at Auxerre, the abbey from which Selby had been founded. Its presence in France was explained by reference to another tradition, namely that the last abbot of Selby, Roger Selby, had taken 'valuables and muniments' to France, although it seems just as likely that someone in Auxerre who knew of the *Historia* had been allowed at some time to make a copy of it.⁶ A manuscript history of the abbey by the distinguished Charles du Fresnes, Sieur du Cange (1610–88), was said (in 1854) to be in Orleans.⁷ To cap it all, one of the Walmsleys was reputed to have taken the remaining archives to Rome in the seventeenth century, although why he should have gone to the trouble is not self-evident.⁸ These last two stories may have a common source. Du Cange appears to have had an interest in French families in England;⁹ perhaps it extended to the great abbey founded by a monk from Auxerre. If it did, he may have based his work on materials lent or given to him by a Walmsley. There was more than one in a position to do so.¹⁰

Neither the *Historia* nor the work attributed to du Cange has come to light nor have Selby archives been discovered in Rome, but these stories point to an abiding belief that there is somewhere in France a manuscript of moment in the history of the abbey

¹ Beryl Holt (ed.), 'Two Obedientiary Rolls of Selby Abbey', *Yorkshire Archaeological Society Record Series*, cxviii. *Miscellanea*, vi. 31–52.

² B.M. Add. MS. 37771: *Y.A.S.R.S.*, x and xiii (ed. J. T. Fowler).

³ Ph. Labbe, S.J., *Novae Bibliothecae MSS Librorum* (Paris 1657), i. 594–626; printed in *Y.A.S.R.S.*, x. 1–54.

⁴ W. W. Morrell, *History and Antiquities of Selby*, 40; *Yorkshire Archaeological Journal*, xv. 408; *Y.A.S.R.S.*, x. xvi.

⁵ Morrell, *History and Antiquities*, 113; I cannot trace the origin of this mention of the French Benedictines.

⁶ *Ibid.*; An entry in the *Coucher Book* makes it clear that Roger Selby was living quietly in England in 1543 when he gave the book to someone unnamed; is it likely that he had taken material to France before that? He was buried in Snaith.

⁷ A. Hutchinson, *Selby Abbey Church*, 6, 8; the author does not indicate the source from which he quotes *verbatim* the nineteenth-century evidence of the existence of this belief. I cannot trace the origin of the suggestion that du Cange was the author of the lost work.

⁸ Morrell, *History and Antiquities*, 146.

⁹ C. L. Richard, O. P. and J. J. Giraud, O. P. and others, *Bibliothèque Sacrée*, xi, 321; among the MSS left by du Cange was '*Recueil de blasons, deux fol. in fol, dont le premier contient entre autres choses beaucoup de recherches sur les anciennes familles françaises transplantées en Angleterre*'.

¹⁰ Morrell, *History and Antiquities*, 138, 146; Morrell says that Thomas Walmsley, the eldest son of Richard Walmsley, died in Paris in 1677 and that after Richard's death in 1679, Mary, his widow, spent some time there.

and that at some time someone took to the continent archives belonging to the abbey.¹ Less romantically, as Barrie Dobson indicated in an article in a recent volume of this journal and as Mr. G. S. Haslop reiterates in a footnote to this article in this volume, more of the archives which once belonged to Selby have come to light in this country.² Not only are Selby archives available to scholars in the Record Office of the East Riding of Yorkshire but also in Archbishop's House, Westminster, and, let it be said, in the Essex Record Office.³ It would seem appropriate now just after the 900th anniversary of the foundation of the Abbey to make known some details of the least known of these collections.

Sixty manuscripts, once housed in the *archivium* of Selby Abbey, together with documents pertaining to the estate after the dissolution and associated collections of miscellaneous deeds and manuscripts were found about ten years ago among the archives of the archdiocese of Westminster. It is still not known how the collection ever came to be at Westminster. There is no evidence within the collection itself to explain its present whereabouts. When it was rediscovered, it included material dating from the very early nineteenth century (1808) but we cannot, therefore, assume that the collection arrived all in one piece after that date. It may be a collation of several smaller collections. It is not improbable that it was originally associated with a financial arrangement or a trust to which the Petres and the Catholic ecclesiastical authorities were parties.

The collection has been calendered in five divisions, three of them consisting of material directly relevant to the monastic estates or to the post-dissolution Selby estate, while the other two contain deeds and manuscripts which have no direct connection with Selby or which have no direct bearing on the estates. There are 46 numbered items pertaining to the monastic estates but some of them are in fact small collections of documents sewn together but each of a different year, which brings to 61 the total number of items which belonged to the abbey's archives. There are 32 numbered items belonging to the post-dissolution estate and while some of these are collections of *data* extracted from rolls of different years, each one is either a single annual record or was evidently compiled as a unit and there is therefore no reason to regard any of them as other than a single item. The two divisions having no direct relationship with the Selby estates contain 51 numbered (and single) items.

The only division uniquely composed of archives which belonged to the Abbey itself is that of the account and obedientiary rolls (Se/Ac/1–24). There are 24 numbered items but in all there are 39 rolls because in some cases the rolls of a particular obedientiary for several years are sewn together, thus Se/Ac/14 consists of a run of hospitaller's accounts for the period 1425–32, each of the seven rolls covering a single year. The earliest roll in this division dates from the fourteenth century and the latest from the sixteenth century, but 29 of them, obedientiary rolls for the most part, date from between 1410 and 1460. Five of the six obedientiary rolls mentioned by Miss Holt date from the same period. A comparative study of all the obedientiary rolls would be an excellent piece of journey-work for someone.

The court rolls and views (Se/CR/1–46) include 17 from the Abbey's manors and 29 from its lay successor. The rolls for the monastic period differ markedly from the account rolls in the period they cover. Apart from three late fourteenth-century rolls, they all cover periods between 1490 and the dissolution; the latest being that of 1524. The

¹ Since this note was drafted, this belief has been justified by the discovery of the *Historia* itself in the Bibliothèque Nationale in Paris; R. B. Dobson, 'The First Norman Abbey in Northern England', *Ampleforth Journal*, Summer, 1969.

² Barrie Dobson, 'The election of John Ousethorp as Abbot of Selby in 1436', *Y.A.J.*, xlii (i), (pt. 165), 31–40. I am indebted to Mr. Haslop for clarifying several points; see above, pp. 159–169.

³ East Riding of Yorkshire Record Office, *Brief Guide to the contents of the East Riding Record Office* (3rd ed.); Westminster Diocesan Archives (W.D.A.); Essex Record Office (E.R.O.). In the E.R.O. there are not only archives which belonged to the Abbey but many pertaining to the successor lay estate. I am indebted to F. G. Emmison, Esq., for the following examples: E.R.O., D/DP T329–330; D/DP E147; D/DP E145; D/DP A194; D/DP E171. The cataloguing of the collection at Westminster (which was begun before the appointment of a permanent archivist) was undertaken by T. Bindoff, D. Grant, A. Hopkins and K. G. T. McDonnell.

remaining 29 items in this category extend brokenly from 1531 to 1727 and include court-rolls, views, and extracts of information on specific issues taken from earlier rolls.

There are 7 miscellaneous deeds (Se/Misc/1–8) and a nineteenth-century transcript of an eighth. Four are pre-dissolution and their dates are 1277, 1366–7, 1446 and 1473. The most outstanding of the deeds is the lease of the site of the Abbey in 1540 by Sir Ralph Sadler and Mr. Henry Whitreson of Hackney, Middlesex, to Oswald Sysson of Selby.¹ It consists of a detailed description of the site written in Latin and English on sheets of paper sewn head to tail to make a long roll.

This manuscript sheds further light upon the whole extraordinary business which went on over the site of the Abbey and its lands.² On 20 December 1539, Sadler had authorised Whitreson to convey to Oswald Sysson for 21 years the site of the Abbey ‘after the monastery of Selby is surrendered and dissolved’;³ in August 1540 Sadler was duly granted the site and demesne of the Abbey with other lands and he seems then to have granted the whole to Whitreson,⁴ who with him confirmed the site to Oswald Sysson.⁵ However, Whitreson was prevented by illness from completing payment and consequently he accepted an implied offer by Leonard Beckworth to take over the grant; in December 1540 Sadler was duly permitted to alienate to Beckworth.⁶

Of the two divisions of material having apparently no direct association with Selby or the administration of the estates, one is a collection of deeds (Dd/Misc/1–19) all but three of them predating the dissolution. They pertain to the interests of other religious houses like Rievaulx, Kirkham and Drax, as well as to individuals, and include legal issues and the settlement of a parish quarrel. Their relevance to Selby is not clear from their own texts. The other is a collection of miscellaneous manuscripts (MSS/Misc/1–32) which include transcripts, agreements, private accounts, and four poems. Among the transcripts are some relating to the interests of Selby and Whalley Abbeys. The poems date from the reign of Charles II and one is associated with a work by Edmund Waller, while another is an epilogue to William Wycherley’s ‘St. James Park’ or ‘Love in a Wood’. The most recent dated items in the whole collection are two letters each dated 19 December 1808 and addressed to Harper who was Lord Petre’s steward in the manor of Selby ‘and elsewhere in Yorkshire and in Lancashire.’⁷

¹ W.D.A., Se/Misc./5.

² G. W. O. Woodward, ‘A Speculation in Monastic Lands’, *E.H.R.*, lxxix, 779–83.

³ B.M. Add. Ch. 45875 (the Abbey was surrendered on 6 December).

⁴ Woodward, *op. cit.*

⁵ W.D.A. Se/Misc./5.

⁶ Woodward, *op. cit.*

⁷ W.D.A., MSS/Misc./7, 8.

EARLSHEATON HALL: A SIXTEENTH-CENTURY TIMBER-FRAMED BUILDING NEAR DEWSBURY

By S. WRATHMELL

SUMMARY

During the demolition of a seventeenth-century house at Earlsheaton, Dewsbury, fragments of a timber-framed building were found within it. The scanty historical and archaeological evidence suggests a sixteenth-century date for its construction, and a door lintel inscribed 1633 seems to record its rebuilding in stone. In plan the structure formed a rectangular house of three bays, with 'outshuts' at the rear and ends. The characteristics of the timber framing are identical with those of other buildings of similar date in the area.

I

INTRODUCTION

The township of Earlsheaton overlooks the Calder Valley from a spur about half a mile to the southeast of Dewsbury (Fig. 1). Its historical relationship to Dewsbury has been mainly that of a small outlying community, within its parish and partially under its jurisdiction. The Hall itself was situated near the centre of Earlsheaton, at the junction of Town Street and Ossett Lane (SE 257212). In Autumn 1966, Mr. G. M. Haley discovered within the existing stone structure the remains of an original timber-framed building; and his information led to architectural and archaeological surveys during its demolition the following year. The work was undertaken by the Wheelwright Archaeological Society of Dewsbury, under the supervision of Mr. J. R. M. Lyne. The owner of the Hall, Mr. D. Thompson, showed unfailing generosity throughout the investigations.

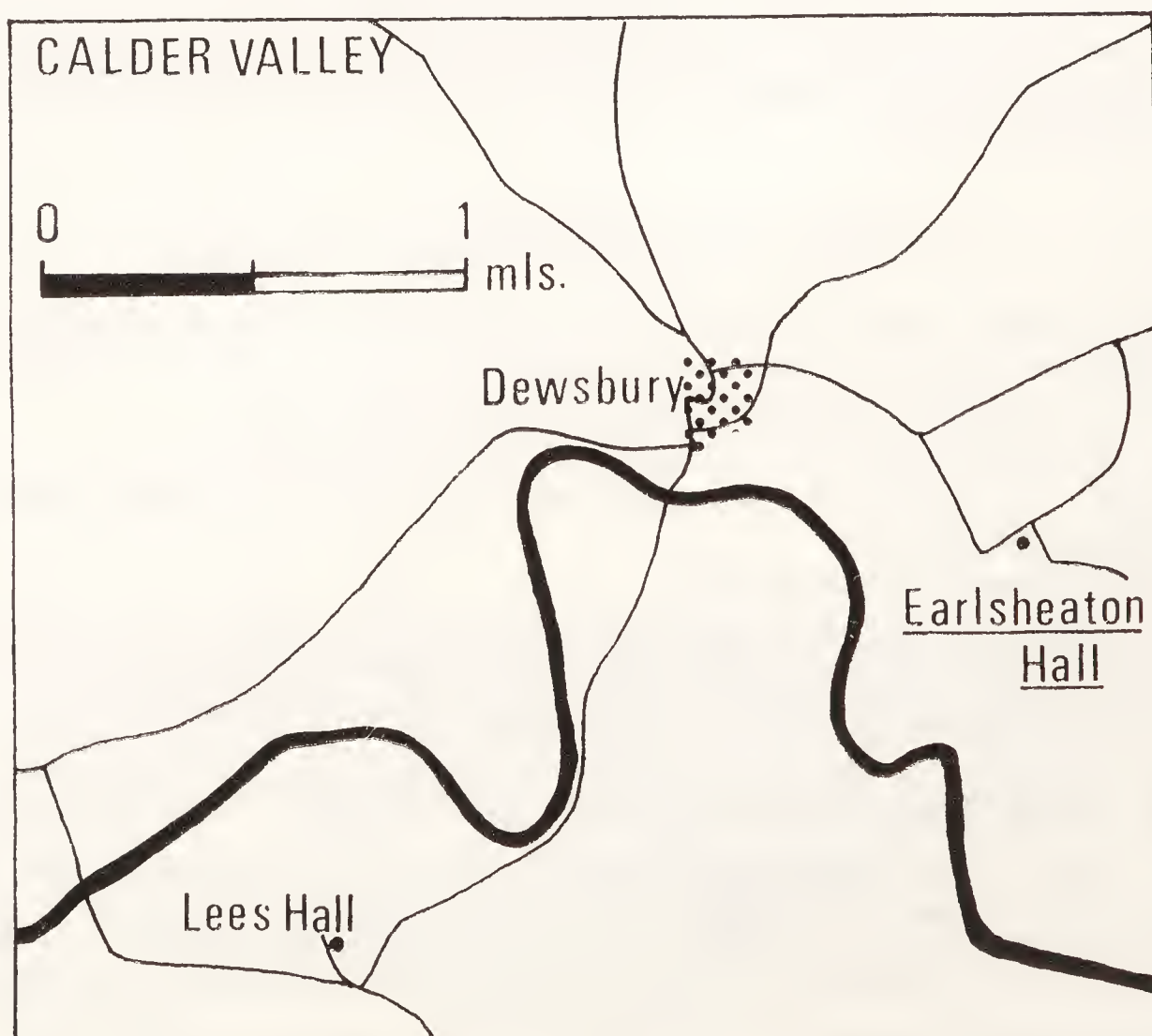


FIG 1. Earlsheaton Hall in relation to Dewsbury.

The ground plan (Fig. 2) shows the condition of the Hall in its ultimate form. Despite modifications it has remained essentially a seventeenth-century stone hall. Unfortunately its most imposing features, including oak panelling and a staircase, had been removed before the survey had begun; and work was concentrated upon the earlier timbering which had survived to a surprisingly large extent behind and within the stone walls. Moreover, although the various floor levels had been cut away during rebuilding during this century, it was found possible to excavate three trenches in order to check the extent of the timber building and to discover the chronology of the various structures.

This paper is concerned primarily with the recording and dating of a single hall. Yet some consideration must be given to comparable houses in the West Riding, and to medieval timber buildings as a whole. Useful regional material is contained in James Walton's admirable booklet encompassing the Huddersfield district,¹ and the illustrations of John Leyland provide some information on halls in the Halifax area.²

The total picture of timber construction has increased in complexity with the rapid advancement of regional surveys; and the generalisations, based upon certain structural details which define two separate traditions – the cruck and the box-frame – on a high-land-lowland distribution, have been found inapplicable in several areas.³ A further problem in classification has been raised by the deduction of a hybrid 'post-and-truss' type of house in Worcestershire,⁴ one which has direct relevance here.

In an attempt to provide a more viable system of grouping, J. T. Smith has classified timber-framed buildings by type of walling.⁵ Yet this need not invalidate distinctions made according to fundamentals of construction. The box-frame may be understood as a rectangular structure of interlocking vertical and horizontal members, which as a whole support the roof; whilst in the cruck building the weight of both roof and walls is carried by the crucks themselves. Treated thus as concepts rather than as types of construction, the differences between cruck and box-frame may help in the evaluation of the significance of any building or groups of buildings.

In his classification of timber walling, Smith noted a form characteristic of West Yorkshire which he entitled 'interrupted sill' from its most important feature. In structural terms, principal vertical posts bear the weight of the roof and wall frames. There is no continuous ground-sill, the lowest horizontals being mortised into the sides of the principals; thus the type may be seen to have originated in cruck building. It is intended here to classify Earlsheaton Hall within this group, as an example dating from the early sixteenth century.

II

SURVEY OF STRUCTURAL REMAINS

The timber walling which had survived *in situ* seems to have comprised three main bays enclosing a rectangular area of approximately 14 m. by 6 m., in addition to which were three low 'outshuts'. The components of the walls were:—

- (a) Vertical principals about 3.3 m. high set upon stylobates.
- (b) Horizontals connecting the principals, the lowest of them being 0.5 m. above the feet of the principals.
- (c) A low sill of well-coursed stone.
- (d) Vertical studs about 0.2 m. wide, set their own width apart and forming single units of timbering above and below the middle horizontal (bressumer).
- (e) An infill of slates secured by grooves in the sides of the studs, with a covering of plaster.
- (f) Slightly curving angle-braces connecting the principals to the wall-plate.

¹ Walton, J., *Early Timbered Buildings of the Huddersfield District* (Huddersfield 1955).

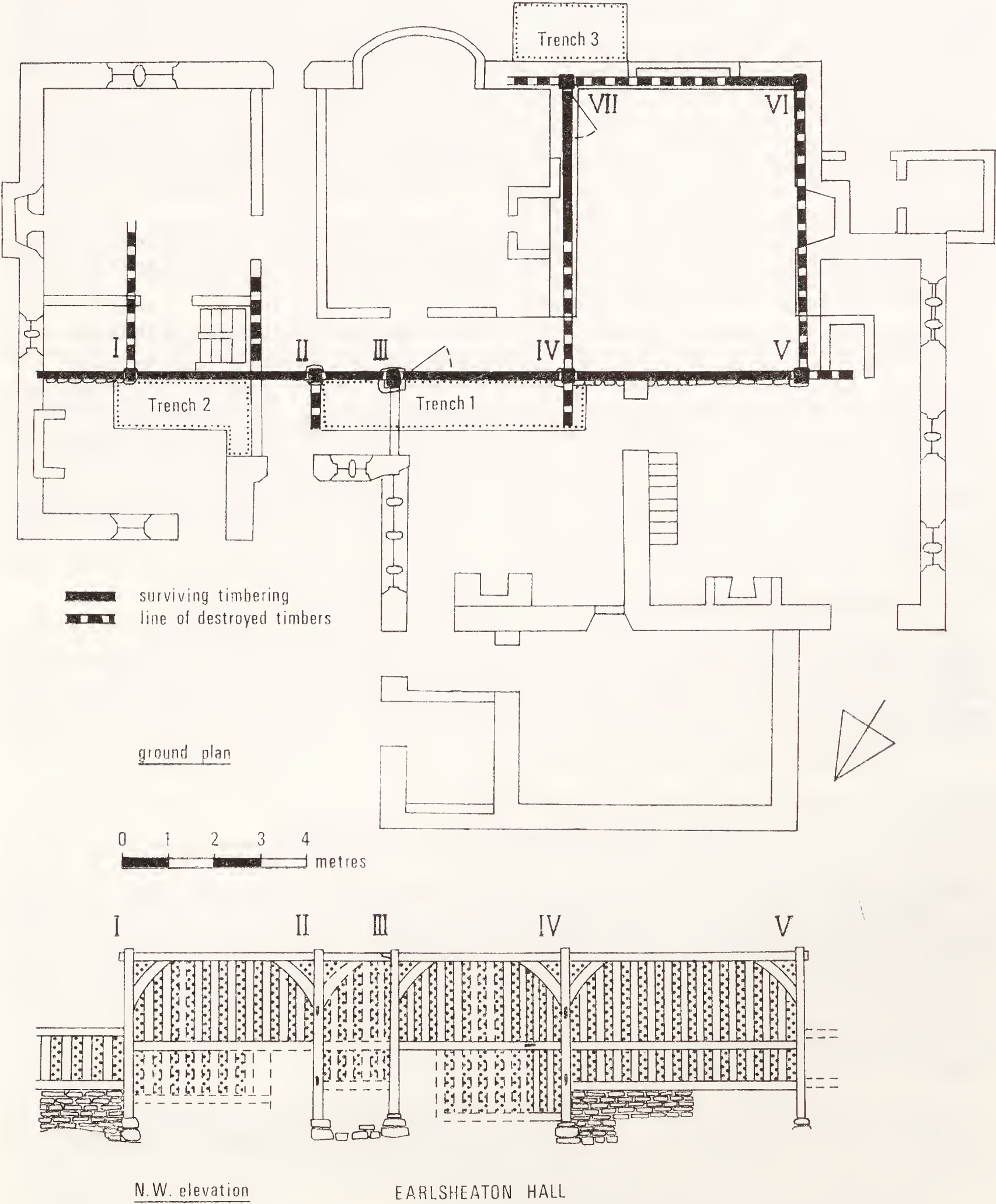
² Leyland, J., *Views of Ancient Buildings . . . of the Parish of Halifax* (Halifax 1879).

³ See Smith, J. T., 'Timber-Framed Building in England', *Arch. J.*, cxxii (1965), 133–135, and Charles, F. W. B., *Medieval Cruck Building and its Derivatives* (Medieval Archaeology, Monograph Ser. No. 2, 1967), 3–7.

⁴ Charles, *op. cit.*, Ch. 5.

⁵ Smith, *op. cit.*

Timbering from the northwest wall (see Fig. 3) had survived completely between principals IV and V; that between I and II was intact above the bressumer. In the area from II to III only slots in the principals and wall-plate remained to show construction. Between principals III and IV the stone sill was absent, and the timber frame had extended to floor level. Perhaps related to this, a doorway adjoined principal III on its southwest side. It was indicated by a slot in the upper surface of the stylobate projecting from beneath the principal, probably the footing for a doorpost, and by an absence of slots on the underside of the bressumer within 0.8 m. of the principal.



FIGS 2 AND 3. Plan and northwest elevation of Earlsheaton Hall

At the northeast end of this wall was found an extension of the timber frame 2 m. in height. Its original length is unknown since the beams terminated abruptly in a seventeenth-century stone cross-wall. The upper and lower horizontals were slotted into principal I at higher levels than their equivalent beams in the main building, and the stone sill was proportionately higher. The studs were more widely spaced and were not grooved to take slates. Mortise slots in principal V containing the remains of tenons and pegs evidenced a similar extension at the other end of the building, which had been obliterated by seventeenth-century cellars.

Presumably of like construction was a third 'outshut' to the northwest of the building. Used slots in the outer faces of principals II and IV indicated horizontals at the same heights as those of the other extensions. The excavation of Trench 1 produced no sign of footings for this 'outshut'; but this need not be significant, since the whole area had been cut down to accommodate a seventeenth-century flagstone floor. The doorway adjoining principal III would have given access to this lean-to.

Remains of the other sides of the timber building were fragmentary. Of the end wall between principals V and VI a length of wallplate at the southeast end was the sole surviving feature. Similarly only 1.25 m. of wallplate remained along the line of the southeast wall between principals VI and VII.

More imposing was a partition wall between principals VII and IV. A fine ogee-shaped door lintel had been carved out of the bressumer at its junction with principal VII,¹ and above this the vertical studding was intact.

Conclusions: The original Earlsheaton Hall can be visualised most reasonably as a rectangle of three bays with 'outshuts' at the rear and at both ends. The plan is one commonly used for the yeoman farmhouse of the Tudor period² – a designation supported by both archaeological and documentary evidence. The bays may be differentiated functionally as a central hall, the owner's private chamber at the southwest end, and the pantry at the northeast. Despite the obliteration of evidence, it is probable that a through passage-entrance divided the hall from the pantry. The feature is common to numerous similar buildings of this locality,³ and appears to have survived in plan at Earlsheaton despite the extensive alterations. Moreover, what seems to have been the tenon of a transverse bressumer was found at the northwest end of the northeast wall of the proposed passage-entrance, protruding from the long-wall bressumer.

The existence of an upper storey in the timber building is unproven. The average height of the principals was 3.4 m., and any floor dependent upon the bressumer would have been less than 2 m. above the ground floor of the hall. The present upper floor can be associated with the rebuilding in stone, when the ground level within the house was lowered.

III

THE HISTORICAL BACKGROUND

Documentary evidence for the history of the Hall is slight. During the second half of the seventeenth century it was probably owned by a branch of the Nettleton family of Lees Hall. Evidence for this connection is provided by a coat of arms which was above a seventeenth-century fireplace in Earlsheaton Hall and, circumstantially, by the Hearth Tax Returns for 1662. Yet in 1633 the house seems to have had different owners. Recording the reconstruction in stone was a block, forming the lintel above the northwest entrance, bearing the date 1633 and the initials ^J_{R S}

During the sixteenth century the most notable family in the township was that of Speight. They figured largely in litigation, owning land at Batley, Chickenley and

¹ The doorhead is now at Dewsbury Museum.

² Wood, M., *The English Medieval House* (1965), 219.

³ See Walton, *op. cit.*

Ossett.¹ The first record of their presence in the Parish of Dewsbury dates from 1539,² and their status as a yeoman family is known.³ They are not recorded as living in Earlsheaton after the 1620's. Though direct evidence for the ownership of the sixteenth-century hall is lacking, the Speights appear as the most likely candidates.

IV

THE EXCAVATION

Chronology: The excavations outside the northwest walling were largely an attempt to find dating evidence for the erection of the timber building. At the southwest end of Trench 1 and the northeast end of Trench 2 a flagstone floor was found to be largely undisturbed beneath a modern concrete skim. The flags themselves were resting upon a thin bedding layer of coal-ash, above uncontaminated natural yellow clay. The stylobate of principal I and the stone sill for the surviving northeast timber extension wall both stood upon a narrow rib of natural which projected above the level of the flagging on each side to a maximum height of 15 cm. Therefore the indication is that the original ground surface had been lowered in the 1633 rebuilding.

Between these two flattened areas was discovered a well-defined gulley in natural yellow clay filled with heavy stone rubble and old topsoil. This fill extended beneath the stylobates of principals II and III – apparently deposited at the time of construction of the timber hall. The pottery from this level consisted of:—

- (a) Parts of two tyg handles and a body sherd of Cistercian Ware, attributed to the mid-sixteenth century.
- (b) Two body fragments of coarse ware; one in a whitish reduced fabric with traces of a matt light-brown glaze; the other in a gritty orange-pink fabric having a similar glaze externally.

On this evidence the timber building would seem to have existed for about a century before its reconstruction in stone.

V

TIMBER FRAMED BUILDING IN WEST YORKSHIRE

The similarity of Earlsheaton Hall to timber buildings of the 'interrupted sill' type is clear from the results of the structural survey. The absence of a continuous timber ground-sill, the angle bracing and the close vertical studding are all features by which Smith has defined this group.⁴ A slate infill is found at Thornhill Lees Hall and at Elland New Hall, whilst the ogee-shaped lintel is paralleled at Sunny Bank, Greetland.⁵

Dating evidence for the group is scanty. Reasons have been given here for assigning the construction of Earlsheaton Hall to the mid-sixteenth century. Part of Lees Hall is known on documentary evidence to date from 1530,⁶ whilst Shibden Hall, Halifax, is a century earlier. Smith has suggested that the interrupted sill represents an isolated regional development from at least the fourteenth century until the seventeenth.⁷ A recent survey of Haselden Hall, Wakefield, has indicated some features of this development, for example the absence of stylobates beneath the principals of a possibly fourteenth-century eastern range.⁸

¹ e.g., Dewsbury Rectory Manor Presentments 9 Eliz. I, 12 Eliz. I, and Feet of Fines 25 Eliz. I, 37 Eliz. I.

² Feet of Fines.

³ Will of Richard Speight of Earlsheaton, yeoman. Probate 21 April 1580.

⁴ *Op. cit.*, A distribution map is also given (Fig. 11).

⁵ T. G. Manby, 'Lees Hall, Thornhill, a Medieval Timber-framed Building in the West Riding of Yorkshire', *Y.A.J.* 43 (1971), 118; Walton, *op. cit.* 45 and Fig. 20.

⁶ *Ibid.*, 56.

⁷ *Op. cit.*, 155

⁸ Field, J. J., 'Haselden Hall, Wakefield', *Post-Med. Arch.* 3 (1969), 188–190.

THE CHANTRIES OF THE EAST RIDING OF YORKSHIRE AT THE DISSOLUTION IN 1548

By C. J. KITCHING

SUMMARY

By comparing the information contained in the summary or 'Brief' Certificate made by the Chantry commissioners in 1548 with that in the Ministers' Accounts in the Public Record Office, and the subsequent award of pensions to the dispossessed chantry priests, it is possible to arrive at something like the total of information presented by the commissioners in their full certificates, which have not survived for the East Riding. This paper and the tables which follow it seek to describe the rôle of the chantries, colleges and similar institutions in the area at the time of the Dissolution, and to supply for the East Riding the information given for other parts of Yorkshire in vols. 91 and 92 of the Surtees Society edited by W. Page.

I

As long ago as 1892, W. Page edited for the Surtees Society such Chantry Certificates for Yorkshire as were then known to be among the Public Records and the county archives.¹ His work, however, remained sadly incomplete, because with the exception of Certificates relating to Beverley, Hull, and part of the Deanery of Buckrose, the East Riding was not represented.

It has been asserted that chantries were nearer to the hearts of our sixteenth-century forbears than were the monasteries, and when we consider the whole range of endowments confiscated by Edward VI, it becomes clear that there were very few parishes which were unaffected by the dissolution.² Perhaps for the very reason that there was at the time of the dissolution no great sign of unrest throughout the country – such as had helped to inflame the Pilgrimage of Grace following the dissolution of the monasteries – comparatively little attention has been paid to the subject. But recent scholars³ have seen the importance for English social history of the chantries and their dissolution, and there survives in the Public Record Office a great deal of unexplored documentary evidence from which a history of the dissolution itself might be compiled.

Even though the East Riding Chantry Certificates are still missing – and it now seems unlikely that they will ever be found – it was the author's conviction that it ought to be possible to reconstruct from other sources much of the information they must have contained, and the aim of the present short paper is to serve as an introduction to the Tables which follow, and which contain a summary of the material available. This is but the first step in a more detailed analysis of the dissolution as a whole, which it is hoped will be published at a later date.

A useful starting point is the Valor Ecclesiasticus of 1535,⁴ though its information is not complete for the diocese of York. The collections of Torre⁵ and Lawton⁶ add helpful details, whilst the earlier history of many of the chantries is slowly emerging from the volumes of *Fasti Parochiales* edited in the Yorkshire Archaeological Society's Record Series.⁷ But all of the sources stop short of the dissolution in 1548, and it is therefore necessary to turn to the unprinted material in the P.R.O.

The chantry commissioners of 1548⁸ who made the Certificates, also drew up abstracts of their findings, known as 'Brief Certificates', to help in the assessment of pensions for

¹ *Surtees Society*, vols. 91 and 92 (1894, 1895).

² For example, see A. G. Dickens, *The English Reformation*, 1964, p. 207.

³ W. K. Jordan, *Philanthropy in England, 1480–1660*, 1959, and papers by Joan Simon in *British Journal of Educational Studies*, 1955, 1963, and 1964. Also W. E. Tate, 'A. F. Leach as a historian of Yorkshire education' in *Borthwick Papers* (University of York) no. 23, 1963.

⁴ *Record commission*, volume v, 1825.

⁵ *Torre Mss*, York Minster Library.

⁶ G. Lawton, *Collectio rerum ecclesiasticarum* . . . , 1842.

⁷ *Y.A.S.R.S.*: vols. 85, 107, 129 . . . in progress.

⁸ For the commission, see: *Calendar of the Patent Rolls*: 1548–9, p. 136.

the dispossessed clergy, and the Brief Certificate for the East Riding is fortunately one of the few which have survived.¹ It lists the chantries, college and free chapels of the Riding, together with the names and ages of the priests, the size of the population in some of the larger parishes, and occasionally the distance of chapels of ease from their mother church. A second source is the series of Ministers' Accounts rendered by those responsible for collecting chantry revenue for the crown after the dissolution,² and of these, the 1547-8 account gives many further details not contained in the Brief Certificate, especially concerning funds devoted to gilds and obits. Finally, various lists of pensions awarded to the dispossessed chantry priests confirm some of the information thus gleaned.³

In what follows, Beverley and Hull have been omitted from consideration because of their inclusion in Page's work, and the principal objective has been to identify the chantries only insofar as they were found by the commissioners in 1548, though numerous small endowments were later discovered by commissioners investigating concealed lands, particularly in the reign of Elizabeth.

II

One hazard facing the searcher is that not all chantries were perpetual endowments, so that the number we can discover varies considerably according to the date at which we begin our search. It was not uncommon for patrons, instead of making a perpetual or long-term endowment, to pay a priest to say mass only for a short period, and this form of benefaction became the more popular in the uneasy religious climate of the mid-sixteenth century. For example, making her will in 1533, Lady Margaret Boynton ordered her executors to procure the services of three chantry priests to say masses for her soul at Barmston for a year, and to receive as a stipend seven marks (£4 13s 4d) each.⁴ We must also remember that other chantries had flourished and decayed. Torre records three chantries at Etton, but in 1548 only one is mentioned. Several chapels maintained by monasteries almost certainly fell into disuse at the dissolution of their mother-houses: for example, the priory of Haltemprice had contributed £5 per year to maintain a chaplain at Towthorpe, but by 1548, the chapel site alone is mentioned, valued at 13s 4d. If we go back to 1525-6, the returns for the clerical subsidy assessment⁵ indicate the existence of two chantries at Everingham and one at Halsham, yet by 1548 only one of those at Everingham is still in existence, and that at Halsham has disappeared from the record. Poulson, quoting Torre,⁶ locates one chantry at Aldborough and two at Rise, though the Valor Ecclesiasticus and the Brief Certificate record only one of these, at Rise. The interested reader will readily be able to find other examples to add to these.

After Henry VIII had caused the first survey of the chantries to be made, with a view to their subsequent suppression, it was abundantly clear to the incumbents that dissolution was nigh, and in anticipation of their expropriation, the heads of Sutton College, the hospital of St. Sepulchre near Preston, and the hospitals of Killingwold Graves and Newton Garth, joined with the prebendaries of St. Michael and St. Andrew at Beverley in petitioning the crown for licences to surrender their respective properties into the hands of Sir Michael Stanhope. This was no doubt a move to make doubly sure of their future, by putting themselves at the mercy of a well known local figure who was also in crown favour, being the father-in-law of Protector Somerset.⁷ In this transaction, which was one of the very few gifts, as opposed to sales, of chantry property, land worth upwards of £150 per year changed hands.⁸

¹ Public Record Office (hereafter *P.R.O.*) Chantry Certificates: *E.301/119*.

² *P.R.O.* Special Collections, *S.C.6/Edward VI/564*, et seq.

³ The Brief Certificate contains the returns for pensions as proposed in 1548, whilst the patents confirming the grants are enrolled among the Various Accounts of the Exchequer: *E.101/76/8*. This class also contains the findings of an enquiry conducted in 1552 to see which chantry priests were still eligible for pensions: *E.101/76/23*. Payments of the pensions can be traced through the Receivers' Accounts, *L.R.6/122/1*, et seq., and Cardinal Pole's pension list is *E.164/31*.

⁴ East Riding Record Office, Beverley: *DDWB 25/6*.

⁵ Printed in *Yorkshire Archaeological Journal*, xxxi (1924).

⁶ Poulson, *History of Holderness*, 1840, vol. i, part ii, p. 412.

⁷ *Dictionary of National Biography* (hereafter *D.N.B.*).

⁸ *Calendar of the Patent Rolls: 1547-8*, pp. 250, 170. The valuation is based on the returns in the Valor Ecclesiasticus.

Thus, by the spring of 1548, when the threatened dissolution became a reality, there had been both a steady depletion in the number of chantries, and also a large surrender of property which would otherwise have fallen to the crown under the Act. The commissioners' task in surveying the colleges and chantries of the Riding was therefore lightened. Nevertheless, there were still notable properties to be surveyed, including the colleges at Hemingbrough, Howden and Lowthorpe, which together employed at least 45 people, and had a total gross income in the region of £350 per year. Such a concentration of personnel in three centres is untypical of the pattern in the Riding at large, for a far wider area was served by chantry priests scattered one or two to a parish. But it is fitting to consider the larger institutions first.

The manor of Hemingbrough had been granted by William the Conqueror to the bishopric of Durham and had been subsequently handed down to the prior and convent. A vicarage was established in 1356, but it was 1426 before collegiate status was conferred on the church by the crown. Thereafter, it consisted of a provost, or warden, three prebendaries, six vicars choral,¹ six clerks and several lesser ministers. The Archbishop of York ordained that the warden should have the cure of souls in the parish, being a man in priest's orders, and taking for his living forty marks per year (£26 13s 4d).² The constitution had changed little by 1548, save that there were now three chantries established. The provost, William Whitehead, was also a prebendary in the college at Howden, and Thomas Barkley seems to have held two of the lesser posts concurrently.³ The Brief Certificate notes that there were 2,100 people in the parish, though it is almost certain that this followed the example of many of the Chantry Certificates for other counties in counting only the heads of those who were confirmed. Not unnaturally, the provost continued as vicar when the collegiate status of the church was abolished in 1548, whilst three of his former vicars choral were retained as assistants to minister to the hamlets within the parish, receiving an income equal to their pre-dissolution salaries. The other three vicars choral received only a standard pension, which fell short of their former income by 13s 4d per year, and were dismissed, though the more lowly officers, whilst sharing the fate of dismissal, received pensions equal to their former earnings.

At Howden there was also a close tie with Durham. Once again, the manor belonged to the bishopric, and Walter Skirlaw, during his term as bishop of Durham (1388–1406),⁴ was one of the principal benefactors of the church at Howden, where he is still commemorated. Originally a rectory in the patronage of Durham priory, the church was made collegiate by an ordinance of the archbishop of York in 1267, with five prebendaries, each paying a man in holy orders as his vicar.⁵ The prebendaries at first had joint cure of souls in the parish, though a vicarage was apparently financed from some of the prebend of Howden which ceased to have any share in the cure of souls in 1319. A sixth prebend, of Skipwith, was later incorporated, though at the time of the Valor Ecclesiasticus the vicar of Skipwith was earning substantially more than the other vicars at Howden because he did not rely solely on a prebendal salary. In 1548 all the prebends were well endowed, and attracted such eminent men as Whitehead, Babthorpe and Bellasis, who could be pluralists with impunity, since the term of residence required at Howden, as at Hemingbrough, was only three months in the year. The post-dissolution vicar at Howden was Robert Cole – allegedly a septuagenarian though his theological qualifications are not mentioned – who had been receiving a net income of only £6 2s 0d previously, so that his new position gave him a substantial rise in wealth. It was another large parish, with 2,500 people, and three assistants were once again required if a full parochial ministry was to be maintained. Since their ages were stated as 30, 40 and 54, they presumably compensated by their comparative youth for such deficiencies of their vicar as were due solely to his age.

¹ Only five are noted in the Valor, but six again in the Brief Certificate.

² Torre: *Peculiars*, p. 1263.

³ For this and the subsequent references to chantry priests etc., the reader is referred to the tables below.

⁴ *D.N.B.*

⁵ Torre: *Peculiars*, p. 1078.

At Lowthorpe there was some doubt in 1548 over the status of the church. Was it collegiate, or merely a parish church with chantry priests? If the latter, only the chantry foundations were open to confiscation, and the 'rector' should have remained unaffected. It is clear from the depositions taken in considering the dispute that the local residents used the terms 'college' and 'parish church' without distinction,¹ but it was treated by the crown as a college, though the 'master', John Brandsby, detained the funds for a time. He was vicar of Settrington,² and this fact alone may have precluded his selection for the later cure of souls at Lowthorpe, but in any case he died soon afterwards, and the next known incumbent was Thomas Fugaille, one of the former chantry priests. In 1333, Sir John de Heslerton had endowed six chantries, and there were to be two deacons and one sub-deacon at the least, to serve in the church, the rector paying the chantry priests six and a half marks each and the deacons £2, whilst the sub-deacon was to be paid an unspecified sum from the yearly offerings.³ By 1548, the establishment comprised a rector (or master), four chantry priests and two sub-deacons.

It cannot be denied that the colleges were expected to perform parochial functions while continuing to observe a communal life and formal services in choir. But few colleges survived the dissolution,⁴ and the emphasis turned to a more purely parochial ministry, through which these three parishes can scarcely have suffered. Amid the destruction implicit in the Act of dissolution, it is sometimes difficult for us to remember that some of the crown's motives were to the good of church and commonwealth. Indeed, the crown was constantly alert to the needs of the parishes, and not least to those of the clergy themselves in a period of chronic inflation, as is amply demonstrated by the gradual reduction of the severity with which the collection of First Fruits and Tenths was enforced. After the Henrician reforms, the Tenth had to be paid by the first of April, but this meant that the clergy had generally not received their yearly Easter offerings from which they could pay the due. The discomfiture caused by this system was soon realised, and the crown made several successive attempts to reduce the burden, both by putting back the date for payment to the end of May, and by exonerating the clergy with the lowest incomes from payment of first-fruits – two measures designed not only to ensure a more efficient collection of these dues, but also to help the clergy who might otherwise have been in financial straits.⁵ Governments prepared to take such measures as these would not regard with any relish the removal from the parishes of qualified and competent priests, and to this extent we should moderate our views on the expropriation of so many collegiate and chantry priests in 1548, many of whom were of very modest learning only. Every effort was made to see that the parishes did not suffer by the dissolution, which was directed solely against foundations now regarded as superstitious, and whilst the implementation of the proposals of the commissioners for assessing pensions and appointing assistants may not in every case have been carried out at the local level, this is certainly not the fault of the commissioners, who exhibited a scrupulous fairness in recommending the reprieve of chapels which were sufficiently far distant from the parish church to warrant their continuation as chapels of ease, even if they had only been erected originally as chantries. The Act was not to extend to:

any Chappell made or ordeyned for the ease of the people dwelling distaunt from the parishe Church or such lyke Chappell, wherunto no more landes or Tenementes then the Church Yarde or a lytle Howse or close dothe belonge or pertaine.⁶

Under this clause, the commissioners recommended the retention of four chapels within the parish of Bridlington; and the parishes of Cottingham, Foston, Swine and Wansford

¹ *P.R.O.*: Court of Augmentations, E.321/25/86.

² Torre: *East Riding*, p. 735.

³ *Ibid.*, 1017.

⁴ Those which survived at all needed a good case. The Bedern College in York escaped because it was part of the cathedral foundation, and thus excluded by the Act: see *Statutes of the Realm*: 1 Edward VI, cap. 14, section 15.

⁵ In a series of Statutes:— 26 Henry VIII, cap. 3; 2–3 Edward VI, cap. 20; 7 Edward VI, cap. 4; 2–3 Philip and Mary, cap. 4; 1 Elizabeth, cap. 4.

⁶ Statute: 1 Edward VI, cap. 14, section 15.

were to have one assistant in addition to the vicar. Of Brigham chapel in the parish of Foston, it was noted:

distaunt from the church ij myles, and in wynter they cannot passe for water the contrye. Similar notes were included for chapels at Bolton (Bishop Wilton) and Ganton (Bridlington), though only the latter was recommended for continuation. However, chantries founded within such chapels were, of course, dissolved, and chapels such as that at Gransmoor¹ which were founded solely as chantries, fell into disuse. The impression left by the list of recommendations is that the commissioners had the better interests of the parishes at heart, and that spoliation was not their uppermost concern.

But the crown was almost equally concerned that the other services to the community provided by the chantries should be continued, and of these perhaps education was the most important – it certainly took pride of place in the Chantries Act, though the economic situation curbed the flow of additional funds from the central government to the schools for several years. The East Riding chantries were not noted for their teaching. Admittedly, they ran schools at Beverley and Hull, and for a time at Howden, but the only other explicit mention in the Brief Certificate is of a fund for the maintenance of a school at Pocklington, which does not seem to have had a schoolmaster at this time, though it was soon to acquire one again. A recent writer² has shown that there was little adverse effect on education in the Riding through the dissolution. If any chantry priests supplemented their livings by taking private pupils without having formally endowed schools, as might well have been the case, there is no reason to suppose that they would have ceased to do so after the dissolution, when their unemployment would no doubt give them still more incentive to find some work of this nature to keep up morale, but it is doubtful whether the cantarists' own education in most cases was sufficient to enable them to teach at any but the most elementary level.

Just as undeclared teaching need not have suffered by virtue of the dissolution the same is true of undeclared alms-giving. The overt contribution to poor-relief by the chantries was small, for the Ministers' Accounts record as the only annual disbursements to this end 8*d* at Galmeton, 8*s* at Catton, 4*s* 2*d* at Cottingham and 8*s* 11*d* at Thorganby, though there were stocks of money at Lowthorpe (£2) and Settrington (6*s* 8*d*) to be employed as the need arose. The existence of these sums does not prove the need for poor relief in the parishes thus endowed, since many a pious donor left something in his will to the poor, and it was indiscriminate alms of this kind, given as a last act of charity and conscience by the dying, which stood least chance of exemption from confiscation in 1548: and this, it must be remembered, at a time when the government was becoming increasingly aware of the real problems of poverty, especially in the towns.

The dissolution, however, cannot be measured solely in material terms. The psychological and spiritual impact of the prohibition of masses for the dead and bequests to maintain them is not measurable, though we need not doubt that old habits were a long time in passing. A few pence would enable a lowly donor to provide a lamp burning in the church for a year or two, even if he could not afford to found a chantry, and the Tables below demonstrate how widespread this practice was in the Riding. There were in addition many parish gilds which collected funds to pay a priest for occasional observances,³ but usually these funds were insufficient to provide him with a regular salary. Other ways of providing lasting income were various, but perhaps the most interesting is the bequest of cattle to be hired out for a yearly rent, as at Attinwick, Catwick and Nunkeeling, the proceeds going either to the poor or to the maintenance of some obit or ceremony in the church in memory of the donor.

It was therefore possible for men of almost any means to contribute in some way to the upkeep of chantries and other institutions prohibited in 1548. In the greater chantries,

¹ Lawton, *op. cit.*, p. 292.

² J. Lawson, *The endowed Grammar Schools of East Yorkshire* (East Yorks. Local History Society, 1962) p. 9 et seq. The standard of learning among the chantry priests is not stated in the Brief Certificates, save for the mention that Whitehead, Babthorpe and Bellasis (Howden) and Brandsby (Lowthorpe) were graduates.

³ For a general history of the parish gilds see H. F. Westlake, *Parish gilds of Medieval England*, 1919.

it was not unusual for the income to consist of rents from a dozen or more individual plots of land, which had been bequeathed by the founder. The Chantry Certificates from Henry VIII's survey in 1546, had they survived for the area, would have given us very much more information about the exact provenance of the income of the chantries listed below. Such information was deliberately omitted from the Brief Certificate to economise on space, and the Ministers' Accounts assume prior knowledge of the details, for they predominantly mention only the total income of the chantries, without specifying the source, save perhaps to mention that it derives from 'rents and farms'. Occasionally, however, further detail is given, such as the separate enumeration of the sums arising from free tenants, leaseholders, copyholders or tenants-at-will, and where this information is supplied it has been noted. For the smaller institutions, there was less wastage of space involved in listing the names of individual tenants, together with their contributions, and these too have been separately noted. Many thousands of small tenants had a change of landlord in 1548 throughout the country – instead of paying their rents to the chantry priests they paid to the crown or its nominees.

In these circumstances it is peculiar that there was no great unrest occasioned by the dissolution alone. This must surely be in part because the contribution of many of the cantarists to the parish life was not greatly missed. After all, except where he assisted the cure many of his services would be privately sung for the repose of the souls for whom it was his duty to pray. And all the more praiseworthy efforts of the cantarists seem to have been scheduled for continuation after 1548. Furthermore, although there was a massive change in land-ownership, rents suffered little directly, and those tenants who held directly from the crown for a time probably suffered least of all by the change, for crown rents were notoriously stable. In many cases, therefore, the dissolution could have given little more than slight grounds for apprehension.

If, on the one hand, the tenants were content, there was little cause, on the other hand, for the chantry priests to be less so. Their pensions, unlike those of the dispossessed monks which had been independently assessed by the commissioners,¹ were based on a fixed scale related to their former income,² and the fact that many of the pensions fell below the recognised subsistence level of £4 to £5³ was thus not a reflection on the heavy hand of the crown, but on the former level of income: clearly, such men must have found alternative or additional means of support. Three quarters of the persons listed in Table I obtained pensions exactly equal to their former earnings, and the list may be analysed as follows:

<i>Value of pension or salary after 1548</i>	<i>Number of awards</i>
Over £6 13s 4d	2
£6 and under £6 13s 4d	9
£6	7
£5	22
£4 and under £5	11
£3 and under £4	14
£2 and under £3	22
£1 and under £2	4
Under £1	6

The two awards in the highest category were not pensions, but livings awarded to the vicars of Hemingbrough, and Howden after consultation with the Council. As we have seen, those appointed to assist the cure in these two parishes received salaries commensurate with their new status, instead of being judged on the scale of chantry pensions to which their less fortunate colleagues were subjected. Whilst the commissioners attempted to discover any other sources of income that the cantarists might have had,

¹ D. Knowles, *The Religious Orders in England*, vol. 3, p. 407.

² The scale of pensions is laid down in the *Calendar of the Patent Rolls*, 1547–8, p. 417: for an income over £10, pension £6 13s 4d; Income £6 13s 4d to £10, pension £6; Income £5 to £6 13s 4d, pension £5; all other pensions were to be equal to the former salary.

³ Knowles, loc. cit.; G. W. O. Woodward, *The Dissolution of the Monasteries*, 1968, p. 145.

they only seem to have succeeded in half a dozen cases,¹ and in no instance did their findings affect the pensions eventually awarded. The number of pensioners slowly declined and those who lived on were subject to delays in the payment of their pensions.² At the making of Pole's pension list in 1555, between a quarter and a fifth of the cantarists of the Riding in 1548 had disappeared from the record, either through death, or through promotion to a benefice,³ and from the crown's point of view this was a healthy trend, because for many years the amount paid out in pensions greatly reduced the profitability of the dissolution.

What prospects were there, then, for the crown, having surveyed the chantries in 1548 and gathered the information contained in the Tables below? It is a question awaiting detailed study, but one on which the early Ministers' Accounts throw some light. Reserved rents to local landowners totalled over £10 per year and the fees of the auditor each year were £3 6s 0d. Some properties stood vacant, whilst for others the collectors were unable to come by the rents because they had supposedly been detained by poor people and spent on daily necessities. Thomas Mainprice, for a time the chantry priest at Lund, drew all the income for 1548, of which the crown was entitled by the dissolution to one half, and then died a pauper, whilst at Driffeld the sum of 32s had to be written off in 1549 because:

aliqui eorum sunt pauperi . . . et reliqui in fugam se dederunt.⁴

Tenants at Riccall, Patrington, Hornsea and Cottingham held by copy of court roll, and under the terms of the Act⁵ were thereby exempted from paying anything to the crown. So we can appreciate that the dissolution was no easy operation to direct at the local level, and the collectors frequently had unenviable tasks.⁶ The gross total in the Brief Certificate and the Ministers' Accounts therefore represents far more than the crown could hope to gain in practice, yet after all the expenses except the pensions, a yearly net income of £400 was possible from the chantries in the area we have been studying, and certain former crown expenses incurred in the upkeep of chantries could be dropped.⁷ The prospects were not, therefore, too bleak.⁸

NOTES ON THE TABLES

The chantry certificates provide for many counties a sympathetic insight into the working of the commissioners. Such an analysis is not possible from the available material for the East Riding, nevertheless, it is hoped that the following information will serve to fill the gap left in the Yorkshire Chantry Certificates. A short explanation of omissions is necessary. The commissioners of Henry VIII in 1546 made their survey under areas corresponding to the clerical divisions – archdeaconry and rural deanery – whilst their successors of 1548 used predominantly the civil divisions of county and hundred or wapentake. I have followed the boundaries used by the 1548 commissioners, though their system led to some confusion in which Scarborough and Seamer sometimes appear under the North and sometimes under the East Ridings, whilst Riccall and Stillingfleet, which were surveyed with the deanery of the Ainsty in 1546, appear in the East Riding in 1548. Osgodby lay in territory owned by the Duchy of Lancaster, and was not within the competence of the East Riding commissioners of 1548.

¹ Brigham, Holme, Kelk, Kilham, Kilnwick and Lowthorpe.

² A. G. Dickens, 'The Edwardian Arrears in Augmentations payments', *English Historical Review*, vol. lv, (1950).

³ Pensions ceased if the pensioner gained a preferment of greater value than his pension.

⁴ *S.C.6/Edward VI/566*.

⁵ Statute: 1 Edward VI, cap. 14, section 35.

⁶ The North Riding Collectors were having an equally difficult time, see *Surtees Society*, vol. 97 (1896), p. 114 et seq.

⁷ The total income from the chantries at Awborne, Bessingby and Grindale had come from Bridlington priory, and of the chantry at Winestead from Meaux. In addition, Ottringham's chantry received £3 6s 8d from Meaux and the chapel at Kelk £2 13s 4d from the Carthusian House at Hull.

⁸ Since this paper was written, I have explored the Dissolution in more detail in 'Studies in the Re-distribution of Collegiate and Chantry Property in the Diocese and County of York at the Dissolution,' unpublished Ph.D. thesis, Durham, 1970.

TABLE I

The Chantries of the East Riding in 1548.

Symbols used:		* Recommended for continuation † Chapel ‡ Supplementary note following this table	CO : copyhold land L : leasehold R : Income in the form of a free rent S : Yearly cash donation	Small letters refer to notes at the end of the Table			
Parish with population where given	Chantry, Chapel or Promotion	Incumbent (age) in 1548	Net value in 1535 Valor Ecclesiasticus £ s d	1548 Gross value in the Ministers' Account £ s d	1548 Net value in the Brief Certificate £ s d	Pension in Brief Certificate £ s d	Notes
Bainton	St. Mary	Bartholomew Jackson (38)	2 6 8	2 7 4	2 6 8	2 6 8	
Bishop Wilton	†Bolton: St. James	Vacant	—	10 0	10 0	—	
	†Youlthorpe	Vacant	—	9 6	9 6	—	
	Gild	Vacant	—	11 4	11 4	—	†
Bridlington	†Awborne (3 miles) St. Nicholas	Gilbert Scrowson (40)	—	2 13 4	2 13 4	2 13 4	R
	†Bempton: St. Michael (3 miles)	William Dawson* (40)	—	3 13 0	3 13 0	3 13 0*	†
	†Bessingby (2 miles)	Robert Hall (38)	—	5 6 8	5 0 0	5 0 0	R
	†Grindale: St. Nicholas (3 miles)	William Bradley* (40)	—	5 6 8	5 0 0	5 0 0*	R
	†Speeton (3 miles) Chantry of St. Leonard	Martin Stevenson* (80)	—	4 0 0	3 13 4	3 13 4*	†
Burton Agnes	St. Mary	Thomas Pereson (40)	5 8 8	5 16 4	5 5 4	5 0 0	
	†Gransmoor	William Barthorpe (50)	3 16 4	4 1 4	3 13 8	3 13 8	
	†Harpham	Robert Cawdbeke (40)	2 13 4	2 13 4	2 8 0	2 8 0	
Cherry Burton	Holy Trinity	William Lowcock (58)	4 0 0	4 0 0	3 12 0	3 12 0	
Cottingham	St. Saviour stipend	William See (40)	4 13 4	4 16 8	4 7 4	4 7 4	S
	Holy Trinity stipend	John Barker* (46)	5 6 8	5 13 0	5 2 8	5 2 8*	S
Driffield	St. Mary	Thomas Mainprice (50)	—	7 8 0	5 0 0	5 0 0	a
	Holy Trinity Guild	Vacant	—	5 10	5 10	—	†
Easington	St. James	Robert Stole (50)	4 0 0	4 0 0	3 12 0	3 12 0	R
Eastrington	Bellasis Chantry Free Chapel	William Bramley (52)	—	1 19 7	1 0 0	1 0 0	d †
Etton	Holy Trinity	George Jacklin (46)	5 15 10	7 1 0	6 6 6	5 0 0	c, d
Everingham	St. Swithun	John Birkett (46)	5 0 8	5 10 8	5 0 7	5 0 0	

TABLE I (cont.)

Parish with population where given	Chantry, Chapel or Promotion	Incumbent (age) in 1548	Net value in 1535 Valor Ecclesiasticus £ s d	1548 Gross value in the Ministers' Account £ s d	1548 Net value in the Brief Certificate £ s d	Pension in Brief Certificate £ s d	Notes
Flamborough	St. Katherine	Robert Milner (64)	—	7 3 0	6 14 8	6 0 0	
Foston	†Brigham (2 miles)	Richard Butler* (40)	4 0 0	4 0 0	3 12 0	3 12 0*	
	†Great Kelk	John Bealby (40)	4 1 4	4 16 10	4 8 8	4 8 8	e
Hedon	Chantry or stipend	Robert Turner (36)	3 11 6	4 6 8	3 19 4	3 19 4	†
Hemingbrough College (2100)	Dividend	—	(Gross Total) 84 11 0	89 11 5	—	—	† d, f
	Provost	William Whitehead* (40)	26 14 4	27 9 0½	27 9 0½	13 14 6*	
	Vicars Choral	John Harrison* (63)	Five only in Valor Ecclesiasticus at £6 13s 4d each	6 13 4	6 13 4	6 13 4*	
		Thomas Sparrow (35)		6 13 4	6 13 4	6 0 0	
		Richard Mercer (63)		6 13 4	6 13 4	6 0 0	
		John Johnson (53)		6 13 4	6 13 4	6 0 0	c
		Edward Stamp* (40)		6 13 4	6 13 4	6 13 4*	
		Gabriel Morland* (?)		6 13 4	6 13 4	6 13 4*	
	Prebendaries	Thomas Westaby (60)	2 13 4	2 13 4	2 13 4	2 13 4	
	Deacons	Ralph Todd (?)	2 13 4	2 13 4	2 13 4	2 13 4	
		John Brereton (30)	2 13 4	2 13 4	2 13 4	2 13 4	a
		Thomas Barkley (?)	2 0 0	2 0 0	2 0 0	2 0 0	
		Ralph Galand (?)	2 0 0	2 0 0	2 0 0	2 0 0	
		Robert Mercer (?)	2 0 0	2 0 0	2 0 0	2 0 0	
		William Halliday (?)	2 0 0	2 0 0	2 0 0	2 0 0	
		John Thomasson (?)	13 4	13 4	13 4	13 4	
Holme on Spalding Moor	Stipendiaries	Thomas Barkley (?)	13 4	13 4	13 4	13 4	
	Chuntries	Thomas Halliwell (60)	7 6 8	9 6 5	6 8 0½	5 0 0	
	St. Mary (West)	John Andrew (71)	6 10 0	8 4 5	6 10 11	5 0 0	a
	St. Katherine (Wass)	John Harrison (63)	6 13 4	8 15 8	—	—	f
Holmpton & Withernsea	St. Nicholas	Miles Rotherey (40)	4 0 0	6 2 10	4 1 8	4 1 8	e, L
	St. John Evangelist	Thomas Marshal (50)	—	5 10 2½	5 2 4	5 0 0	†

Hornsea	Corpus Christi Gild	Robert Lowthorpe (40)	—	1 15 8	1 15 8	1 15 8	†
	Holy Trinity Gild	Henry Rogers (50)	—	1 9 8	1 9 8	1 9 8	† a
	Dividend	—	(Gross Total) 38 9 8½	37 12 9	—	—	† g
	<u>Prebendaries</u> Skelton	Robert Cole* (70)	15 13 4	15 13 4	6 2 0	13 6 8*	
	Howden	Anthony Bellasis (50)	18 13 4	22 0 0	12 2 8	6 13 4	
	Thorpe	Robert Babthorpe (50)	16 11 8	18 13 4	9 0 1½	6 0 0	
	Saltmarshe	William Towerson (50)	16 13 4	18 13 4	9 0 0	6 0 0	
	Skipwith	Arthur Layton (40)	18 0 0	18 0 0	13 6 8	6 13 4	b
	Barmby	William Whitehead (50)	16 6 8	26 6 8	16 4 0	6 13 4	
	<u>Vicars Choral</u>	John Newett (40)	} See Note g	6 0 0	6 0 0	6 13 4*	
		Christopher Okes (30)		6 0 0	6 0 0	6 13 4*	
		Thomas Michington (55)		6 0 0	6 0 0	5 0 0	
		William Skelton (54)		6 0 0	6 0 0	6 13 4*	
		John Hindsley (37)		6 0 0	6 0 0	5 0 0	
		William Cliffe (32)		6 0 0	6 0 0	4 0 0	
	Five Deacons	(See Note)	—	10 0 0	10 0 0	10 0 0	g
	The Bedern House	—	—	5 9 9	—	—	g
	Holy Trinity Gild	—	—	1 2 0	18 4	—	d
	<u>Chuntries</u> St. Andrew	Christopher Walton (40)	4 0 0	3 6 8	2 18 8	2 18 8	h, R
	St. Cuthbert	Robert Nicholson (52)	5 14 0	6 8 8	5 4 8	5 0 0	
	St. Mary	Ralph Whiting (42)	5 5 8	7 3 5	6 11 11	5 0 0	d
	The Manor	Peter Lawson (deceased)	—	4 3 4	3 15 4	(3 15 4)	h, R
	Laxton: St. Mary Chantry of St. John Evangelist	Christopher Walton (40)	5 0 0	4 9 7½	2 12 10	2 12 10	d, L
	Linton: St. Mary	John Hall (50)	15 4 8	15 0 10	9 6 4½	6 0 0	b †
	† Melton/Welton	Peter Mitchell (54)	} 10 0 0	} 11 10 0	10 10 0	{ 5 0 0 5 0 0	R
	St. James Chapel	William Toller (40)					
	Metham Manor	William Danby (?)	4 6 8	4 6 8	4 6 8	—	h, R
	† Yokefleet (in Blacktoft parish)	William Thompson (46)	6 0 0	6 4 0	3 3 4	3 0 8	† d

TABLE I (cont.)

Parish with population where given	Chantry, Chapel or Promotion	Incumbent (age) in 1548	Net value in 1535 Valor Ecclesiasticus £ s d	1548 Gross value in the Ministers' Account £ s d	1548 Net value in the Brief Certificate £ s d	Pension in Brief Certificate £ s d	Notes
Kilham	St. Lawrence	Richard Wright (40)	3 6 8	4 15 5	4 4 1	4 4 1	e
Kilnwick	St. Mary	John Collier (?)	4 2 4	4 2 4	3 14 0½	3 14 0½	e
Lowthorpe College	Common Fund	—	45 5 0½	62 16 10½	—	—	
	Master	John Brandsby (54)	—	—	—	—	e, k
	Chantry Priests	William Bewell (70)	4 13 4	5 6 8	5 6 8	5 0 0	a
		Robert Sharpe (60)	4 13 4	5 6 8	5 6 8	5 0 0	b
		Thomas Fugaille* (27)	4 13 4	5 6 8	5 6 8	5 0 0	
	Sub-deacons	Richard Bellard (42)	4 13 4	5 6 8	5 6 8	5 0 0	
		Robert Busby (24)	—	2 13 4	2 13 4	2 13 4	c
		Thomas Jeffrayson (28)	—	2 13 4	2 13 4	2 13 4	c
Lund	St. Mary	Henry Rowton (40)	5 3 8	6 3 7½	5 7 11	5 0 0	
Nafferton	†Pockthorpe	Robert Baok (60)	—	15 4	14 11	14 11	
	†Wansford: St. Nicholas (2 miles)	John Potter* (44)	4 6 8	5 8 9	4 19 9	4 19 9*	
Ottringham	St. Mary Gild	—	—	1 0 10	1 0 10	—	
Patrington	St. Mary Chantry	Matthew Newton (60)	3 6 8	3 10 0	3 10 0	3 10 0	a, R
	Holy Trinity Gild	—	—	15 5	15 5	—	CO
Pocklington	St. Mary Gild	Christopher Craven (60)	3 15 0	6 8 8	3 15 0	3 15 0	
	Chantry	William Mody (56)	2 6 8	2 11 10	2 7 2	2 7 2	
	School lands	—	—	16 6 4	16 6 4	—	
Preston	Stipendiary	Thomas Buller (37)	—	4 0 0	4 0 0	—	For 6 yrs. only
Riccall	St. Mary	John Cockerell (40)	5 11 8	7 19 4	6 0 11½	5 0 0	†
	St. James	John Cloudesdale (40)	3 0 2	5 10 11	4 14 0	4 14 0	CO plus 7/4 Free Tenants
Rise	St. Nicholas	Thomas Wynston (60)	2 17 2	4 15 4½	4 5 4½	4 5 4½	†
	St. Mary	Richard Carter (40)	4 1 0	5 5 2	4 17 0½	4 17 0½	
Settrington	St. John	William Thompson (40)	5 6 8	5 0 0	3 12 0	3 12 0	L
	St. Mary	Robert Woodhouse (57)	4 0 0	4 1 4	4 1 4	4 1 4	c, L

Stillingfleet	St. Mary	Richard Calverd (48)	4	3	4	4	11	9	4	2	11	4	2	11	
Swine	St. Mary Gild	Thomas Wilkinson (40)		—			13	4		13	4		13	4	a, † Includes a Light
	†Bilton Free Chapel	(Not Named)*		—			1	0	0	1	0	0	1	0	0*
	†Marton	William Proctor (40)		—			11	6		11	6		11	6	
	†Towthorpe	—		5	0	0	13	4		13	4		—		†
Wharram Percy	Chantry	Robert Swak (80)		4	0	0	1	2	5½	18	1		18	1	
Winestead	Castle: St. Nicholas	Hugh Erington (40)		3	6	8	3	3	4	2	17	1	2	17	1
Wressle	†Newsholme	Hugh Erington (40)		3	6	8	3	9	8	3	2	8	3	2	8

Footnotes to Table I.

† See supplement following these notes.

a Pension not paid in 1552 or 1555.

b Pension not paid in 1552 but recorded in 1555.

c Pension paid in 1552 but not in 1555.

d Reserved rents: see Table II.

e Priests who were known to have other incomes also: Brigham £6; Great Kelk £2 13s 4d; Holme £8; Kilham £8; Kilnwick £4; Lowthorpe £7.

f HEMINGBROUGH: The 'Dividend' was the Common Fund, or total income of the college from all sources, including offerings. This was divided among all the officers. The Brief Certificate notes the hamlets over which the assistants would have authority: OSGODBY and 'TURMONHAL', 2 miles distant and with 400 people; BEALBY, 3 miles and 300 people; SOUTH DUFFIELD, 2 miles and 400 people; BRACKENHOLM, WOODHALL, HAGETHORPE, METHROP and BOUGHTHORPE, 3 miles and 400 people. The chantry priests were separately endowed, but John Harrison drew a total of £6 13s 4d, of which £4 came from his chantry and £2 13s 4d from the Dividend; he received only one pension.

g HOWDEN: Although the prebendaries had a share in the Dividend, each had his own income, predominantly from tithes, out of which he had to maintain both a vicar choral (£6 13s 4d) and a deacon (£2), except for the vicar of Skipwith who was not of the old foundation, and paid only £1 13s 4d to a chaplain at the time of Valor Ecclesiasticus. In 1548 all the vicars were recorded as drawing £6. The five deacons who received £2 each, are named in the pensions lists as John Jackson, John Jaqueson (perhaps identical), Robert Hudson, Thomas Place and William Lambert. The Bedern House was the residence of the vicars. After the dissolution the house of the prebend of Skelton became the vicarage when its occupant became vicar.

h The chantries at Metham and Howden manors, and the altar of St. Andrew at Howden became the cause of heated dispute between the patrons and the crown. Sir Thomas Metham and the Bishop of Durham were both eventually able to prove that they had paid no regular salary such as the crown alleged [Court of Augmentations: E315/129 fol. 96; E321/36/29; E321/38/4 also L.T.R. Memoranda Roll: Easter 2-3 Philip & Mary, m. 36].

k At no stage is Brandsby's personal income stated. He lived off the yearly offerings of the parish, and this was one reason for his battle with the crown. He died before the question of a pension arose.

L Names of leaseholders: John Freeman (LAXTON); Simon Dodsworth (SETTRINGTON, St. John), Leonard Wymbourne (SETTRINGTON, St. Mary).

For some of the places entered in the Table above, the Ministers' Account gives greater detail:—

Place	Item	Foundation	Value £ s d	Paid by
<u>Bridlington</u>	Gild	2 cottages in Brid. Other land	3 4 8 0	......
Bempton	St. Michael	3 tenements, 3 bovates 2 bovates in Welby 1 cottage in Bempton Guildhouse Cottage	2 7 8 10 0 7 0 1 8 6 8	Robert Porter William Glenthams William Pulson Robert Pickering Thomas Pickering
Speeton	St. Leonard	5 bovates, 4 closes at Harpham (leasehold)	2 0 0	William Jackson
		1 tenement, 7 bovates, 3 closes, 1 cottage and a croft at Reighton	1 13 4	...
		Cottage	6 8	Margaret West
Driffeld	Gild	Land	5 10	Christopher Mason
Eastrington	Bellasis Free Chapel	From the total given above, the amount from tenants at will:	19 7	
Hedon	Stipendiary	10 Messuages, 6 acres and 1 rood	4 6 8	Mayor & Burgesses
Hemingbrough	Common Fund	Lands	11 9 88 19 8	Free Tenants Tenants at will
Holmpton	St John	Lands	4 6 8 1 3 6½	Leasehold Tenants at will
Hornsea	Corpus Christi Gild	Cottage Land Cottage 2 closes and 3 bovates 1 close	3 4 1 0 6 0 1 0 0 5 0	Stephen Johnson
Hornsea	Holy Trinity Gild	2½ bovates Cottage Cottage Cottage Cottage Cottage Cottage Cottage Cottage 2 plots of land	4 0 4 0 3 6 6 6 7 8 4 6 2 0 2 0 1 0	Robert Hobleday John Browne Richard Walker Richard Walker John Dalles Thomas Browne Robert Thomson Robert Silibough Thomas Story William Sanderson
<u>Howden</u>	Common Fund	Tithe Offerings Land	14 4 8 10 7 1 1 8 10	Free Tenants Leasehold At will
Linton	chapel	Land	5 16 4 9 4 6	Free Tenants. At will
Yokefleet	chapel	Land	6 4 0	William Edwyn
Lowthorpe		Land	1 3 3½ 25 0 0 31 1 10 4 9 5	Free Tenants Glebe At will Tithes
Preston	St. Mary	all from tenants at will		
Riccall	St. Nicholas	Lands	4 3 1 12 3	At will Leasehold
<u>Swine</u>	Chapel	1 messuage and 1 acre 1 messuage	2 6 5 0	Dennis Wilson Incumbent
Bilton Free Chapel		1 messuage 1 bovat and 3½ acres	6 8 13 4	......
Wharram Percy	Chapel	1 tenement and 2 bovates	13 4	George Chester
<u>Wressle</u>	Castle	tenant of the whole land		Alice Hundesley
Newsholme	Chapel	Land	1 6 8 2 3 0	Free tenants Tenants at will

(Dots: . . . indicate that the information is not in the documents consulted.)

TABLE II

Resolutes: rents paid to landowners out of the chantries' gross income. These were not included in the confiscation.

Riccall	St. Nicholas	£	s	d	to the Prebend of Riccall in York Minster to the Bishop of Durham	
Howden			8	0		
			1	6		
			7	0	to Thomas Metham	
			2	6	to the heirs of William Keldfield	
				3	to John Thorpe	
			1	8	to the heirs of Henry Suttell	
	Bedern		1	2	to William Grave	
			1	9	to the Bishop of Durham	
			12	1	to the Bishop of Durham	
	St. Mary		1	0	to Master Saltmarshe	
				6	to . . . Ashe, gentleman	
	St. Cuthbert		2	0	to Bishop of Durham	
				0	to the heirs of Christopher Morley	
	Laxton*		14	0	to the Bishop of Durham	
			18	0	to the heirs of Villiers	
		1	11	to Thomas Metham		
		5	0	to the Earl of Rutland		
		1	6	to the heirs of Risling		
Holy Trinity Gild Gild		6		to Richard Crosier		
		1	0	to the Bishop of Durham		
		2	8	to the heirs of Thomas Metham		
Bellacize	Free Chapel		16	0	to the heirs of John Aske	
			1	6	to the heirs of Master Wastling	
				9	to Thomas Metham	
				8	to the Bishop of Durham	
Yokefleet			3	1	4	to Lord Eure
				1	0	to Thomas Metham
				1	0	to George Draycot
Copyhold rents in Holderness			15	5½	to crown	
Patrington			18	10	to crown	
Etton			2	1	to Thwaites	
Kilham			4	4	. . .	
Wansford			2	10	. . .	
TOTAL		£10	10	9½		

* For the entry thus marked, the Ministers' Account notes that the resolutes are to be paid by Walter Wolffete, the purchaser of the property.

TABLE III

Endowment of lights and obits (etc.)

The information is derived from the Ministers' Accounts for 1547-8, and the following abbreviations are used:—

- L = Light
- Ob = Obit
- P = payment for the occasional services or a priest, or the saying of an occasional mass.
- G = Gild
- FC = Free Chapel

In most cases the source of the income is not fully detailed, but in a few, details of the exact nature of the lands or rents is available.

Place		Value per year £ <i>s</i> <i>d</i>	Foundation	Paid by
Beeford	L	1 0	Rent for five years still to run	. . .
Bempton	Ob+L	10 0	Free rent	Robert Cowell
	L	10 0	Free rent	Robert Smith

TABLE III (*cont.*)

Place		Value per year £ s d	Foundation	Paid by
Bishop Burton	Ob	8	Land	...
Bishop Wilton	L	4	Land	...
Burnby	L	1 4	Free Rent	Isobel Stranger
Burnholme	Ob	12 0	Land	Richard Pinder
Burstwick	Ob	8	1 close	Gerrard Wright
	L	1 0	Land	John Jeffreyson
Burton Fleming	...	6	Land	...
Burton Pidsea	Ob	$\left\{ \begin{array}{l} 1 \ 8 \\ 1 \ 0 \\ 2 \ 0 \end{array} \right.$	1 bovat called 'Peasehill' Land at Deepcarr 1 messuage, 1 bovat	John Buck Thomas Wilson ...
Cherry Burton	L	1 0	Land	John Lowthorpe
Cloughton	Ob	6	...	...
Cottingham	Ob	$\begin{array}{r} 3 \ 14 \ 6 \\ 6 \ 8 \\ 12 \ 0 \end{array}$	Free Rent Free Rent Free Rent	... Robert Nappey ...
Duffield	Ob	$\begin{array}{r} 1 \ 0 \\ 6 \end{array}$	Cash Cash	Church Wardens William Thwaites
Easington	L	8	2 acres at Holmpton	Edward Buck
Eastrington	L	2 6	...	...
Elstronwick	P	$\left\{ \begin{array}{l} 4\frac{1}{2} \\ 2 \ 0 \end{array} \right.$	Land 5 acres	Free tenants Vicar of Holmpton
Escrick	Ob	$2\frac{1}{2}$	...	...
Etton	Ob	2 0	Land	John Aunley
Filey	...	1 0	Land	...
Flamborough	...	6 0	Land	...
Hedon	P	1 9	Free Rent	Mayor and Burgesses
Hessle	...	10 7	Land	...
Hollym	G	$\begin{array}{r} 3 \ 8 \\ 6 \end{array}$	Guildhouse 1 acre	Thomas Watson & Stephen Robinson
	L	1 0	2 acres	John Barton
Holmpton	L	2 1	Land	John Penthorpe & Chris. Bennington
	P	4	Land	...
Hornsea	Ob	4 0	Cottage	Simon Simkin
	Ob	2 0	Cottage	Simon Simkin
	Ob	3 4	Cottage	William Horner
	Ob	7	Cottage	Robert Hobleday
	Ob	2 0	Cottage	Elizabeth Watson
	Ob	2 0	Cottage	James Bolton
	Ob	3 4	Cottage	Richard Sherwood
	Ob	7	Cottage	John Beverley
Huggate	P	4	Land	...
Kayingham	Ob	$\left\{ \begin{array}{l} 5 \ 0 \\ 6 \ 8 \end{array} \right.$	Free Rents Free Rent	heirs of Wm. Blith Elizabeth Tawney
Kilham	2 Ob	4 0	Land	...
Kilnsea	G	2 6	Guildhouse	...
Lockington	...	13 4	1 Bovate	The Rector
Marton	P	11 6	Land	...
Muston	...	10	Land	...
Nafferton	L	1 0	Land	...

TABLE III (*cont.*)

Place		Value per year £ s d	Foundation	Paid by
Newsholme	L	1 0	Land	...
Ottringham	G	$\left\{ \begin{array}{l} 6 \text{ } 8 \\ 4 \text{ } 0 \\ \quad 10 \\ 2 \text{ } 8 \\ 6 \text{ } 8 \end{array} \right.$	Potterflatgarth Lady Close St. Nicholas Lands 1 acre in s. Hawe Guildhouse	Chris. Hilyard John Drew ... Chris. Hilyard ...
Owthorne	Ob	1 1	Cottage	...
Patrington	Ob	1 1	Free Rent	heirs of Richard Gylson
Paull	Ob	1 1 1 1	Cottage Cottage	William Tolle Philip Bellingham
Pocklington	2 L	6 6	Land	...
Preston	Ob for 6 yrs.	10 8 2 8	Free Rent Free Rent	executors of John Mense
Riccall	Ob	1 4 1½	...	...
Rillington ¹	L	5 4	Free Rent	George Mawe & Thomas Sandomar
Rudston	...	1 10	Land	...
Sancton	Ob	4 8	Free Rent	The Rector
Settrington	Ob for 6 yrs.	10 0	Land at Malton	...
Sigglesthorne	Ob	$\left\{ \begin{array}{l} 1 \text{ } 1 \\ 5 \text{ } 0 \end{array} \right.$	Cottage Cottage	John Estonby Robert Andrew
Skeffling	Ob	$\left\{ \begin{array}{l} \quad 6 \\ \quad 6 \\ 1 \text{ } 8 \end{array} \right.$	Cottage Cottage Wardhouse	William Johnson Thomas Browne ...
	Ob	1 4	Land	Edward Green
Skerne	...	5 0	Land	...
Skipsea ¹	L	3 3 6	Land	...
Sledmere	Ob	1 4	2 acres	...
Sutton on Derwent	Ob	3 4	Free Rent	Church Wardens
Swine	F.C.	1 7 6	1 messuage, 1 acre 1 messuage 1 messuage 1 bovat, 3½ acres	Denis Wilson (2.6) Incumbent (5.0) ... (6.8) ... (13.4)
Thorganby	Ob	2 0½	...	...
	Ob	1 8	...	...
Thornton	Ob	3 4	Free Rent	Hugh Beck
Tibthorpe	F.C.	12 0	Land	...
Walkington	...	6 11	...	...
Warter	Ob	7	Free Rent	Church Wardens
Wawne	Ob	1 0	Cottage	Thomas Barker
Weeton	...	1 0	...	...
Welwick	Ob	1 2	Cottage	Thomas Baxter
	G	3 4	Guildhouse	...
Yedingham	2 L	8	Free Rent	...
TOTAL		£23 0 9		

¹ although sums thus marked were at first noted as yearly contributions, it was decided in later Ministers' Accounts that they were stocks of money, and not permanent endowments.

TABLE IV

In addition to the yearly payments listed above, there were many lump sums to be employed in occasional observances:

Cattle:
Attinwick: 8 cows, rented out at a total of £4 per year
Catwick: 4 cows, rented out at a total of £2 13s 4d per year
Nunkeeling: 1 cow, rented out at 10s per year

			£	s	d				£	s	d
Bishop Burton	..	..	15	0	0	Hutton-Cranswick	..	..	13	4	
Brantingham	..	..	2	8	8	Kayingham	..	..	11	8	
Carnaby	..	..		3	4	Kilnsea	..	..	1	16	8
Driffield	..	..		7	0	Kirkburn	..	..	3	3	0
Duggleby	..	..		9	4	Lockington	..	..	1	0	0
(7s for Free Chapel; 2s 4d for Light)						Marton	..	..	14	8	
Eastrington	..	..		2	6	Muston	..	..	11	8	
Ellerker	..	..	3	7	8	Newsholme	..	..	10	0	
Everingham	..	..		19	4	Patrington	..	..	19	2	
Fangfoss	..	..		6	8	Rudston	..	..	3	18	8
Ferry	..	..		2	6	Swine	..	..	9	9	2
Filey	..	..	1	6	8	Thornton	..	..	12	0	
Galmeton	..	..		4	4	Watton	..	..	5	10	
Garton	..	..		18	0	Wilberfoss	..	..	2	13	4
Hessle	..	..		2	4	Walkington	..	..	3	0	
Holme on Spaldingmoor	..	..	2	13	4	Welwick	..	..	10	2	10
Hunmanby	..	..	4	6	4	TOTAL		..	70	3	0

THE DEVELOPMENT OF UNDERDRAINING ON A YORKSHIRE ESTATE DURING THE NINETEENTH CENTURY

By A. D. M. PHILLIPS

Nineteenth-century agriculturalists regarded underdraining as one of the fundamental bases of agricultural improvement. According to contemporaries, the adoption of underdraining might offer a variety of benefits. In terms of physical improvement of land, its use could provide good cultivable land in areas that otherwise would have been waterlogged. It presented opportunities to improve land already under cultivation. Increased crop yields, changes in use from pasture to arable, and on heavy lands an increase in the variety of crops grown in the pursuance of a more productive or 'expanding' system of husbandry became possible. Underdraining was regarded by landlords as a capital improvement. Contemporaries believed it to be a 'permanent' improvement, in some instances being estimated to last 200 years. By underdraining, landlords could increase the value and rent of their land in both the short and long terms.¹

Historical geographers and economic historians alike, while realising the importance of underdraining as an improvement, have disagreed as to its extent and effectiveness in England during the nineteenth century.² These differing interpretations, however, have been based on published estimates of the amount of land drained, which have been shown to be variable and unreliable, and have tended to be at a national level.³ Detailed studies are required to establish the amount, chronology, location and type of land drained for conclusions to be drawn about the effect of underdraining on agricultural practice. The study of underdraining at estate level has been ignored hitherto in the literature of English agricultural history, and the purpose of this paper is partially to remedy this defect, by discussing underdraining on the Yorkshire estate of the Earls of Scarbrough during the nineteenth century.

The Estate

The estate lay in the southern part of the West Riding of Yorkshire, mainly in the parishes of Maltby, Stainton and Tickhill, some 10 miles distant from both Doncaster and Rotherham. Although its acreage increased throughout the nineteenth century, the estate was relatively small, belonging to Thompson's category of greater gentry estates.⁴ The total acreage increased from 4,300 acres in 1813 to 5,860 acres in 1862 and to 6,041 acres in 1896 (Table I). The estate was not subject to a uniform tenure, and 3 different kinds may be recognised. The main body was known as the hereditary estate, subject to lifehold tenure and strict family settlement. In 1813, the hereditary estate covered 3,158 acres; by 1845 it had expanded to 4,451 acres, an area that was maintained throughout the rest of the century. Secondly, there was the purchased estate, which was held in fee and not subject to strict family settlement, and this contained

¹ See for example, J. Parkes, *Work on Draining* (Worksop, 1847); J. Trimmer, *On the Improvement of Land as an Investment for Capital* (London, 1847); J. B. Denton, *Agricultural Drainage* (London, 1883); British Parliamentary Papers, *General Board of Health: Minutes of Information collected in respect to the Drainage of the Land* (1852), xix.

² H. C. Darby, 'The Draining of the English Claylands', *Geographische Zeitschrift*, 52 (1964), 190-201; R. W. Sturgess, 'The Agricultural Revolution on the English Clays', *Agricultural History Review*, 14 (1966), 104-21; E. J. T. Collins and E. L. Jones, 'Sectoral Advance in English Agriculture, 1850-80', *A.H.R.*, 15 (1967), 65-81; R. W. Sturgess, 'The Agricultural Revolution on the English Clays: a Rejoinder', *A.H.R.*, 15 (1967), 82-7.

³ A. D. M. Phillips, 'Underdraining and the English Claylands, 1850-80: a Review', *A.H.R.*, 17 (1969), 44-55.

⁴ F. M. L. Thompson, *English Landed Society in the Nineteenth Century* (London, 1963), 114.

539 acres in 1813, 753 acres in 1862 and 726 acres in 1896. The third area was known as the crown estate, which lay in the parish of Tickhill and was leased from the Duchy of Lancaster. It remained the same size (674 acres) throughout the century, and like the



FIG. 1. Land Drained and Tenure.
(Sources: SMR, EMS/45; EMA/78; EMBA/2/1; EMDP/7; Estate Maps Nos. 9, 25, 43, 45).

purchased estate was not subject to strict family settlement (Fig. 1).¹

TABLE I
SIZE OF ESTATE, 1813 TO 1896
(in acres)

Date of Survey	Total Estate acreage	Hereditary Estate	Purchased Estate	Crown Estate	Tenanted Cultivated acreage
1813	4371	3158	539	674	3076
1845	—	4451	—	—	2743
1862	5860	4433	753	674	3735
1896	—	4641	726	—	3566

(Sources: SMR, EMS/37; 41/1 & 2; 45; 47)

The 3 parts of the Scarborough estate witnessed a variety of ownership throughout the century. From 1813 to 1832, the whole of the estate was held by the 6th Earl. With his death in 1832, the hereditary estate passed to the 7th Earl and then to the 8th Earl in 1835, while the remaining 2 estates were held by the 6th Earl's wife, the Countess of Scarborough. On her death in 1846, the crown and purchased estates were taken by a cousin, Richard George Lumley, while on the death of the 8th Earl in 1856, the hereditary estate also passed to Lumley as the 9th Earl.² For the remainder of the century, the 3 estates were controlled as one. Nineteenth-century agriculturalists were of the opinion that the land held in strict family settlement, with the owner having only a life interest, tended to obstruct agricultural improvement.³ The different tenures on this estate have been detailed so that the degree to which they encouraged or retarded improvement may be examined.

The estate varied considerably in its geological background (Fig. 2). Two large stretches of Upper and Lower Magnesian Limestone, with an area of Middle Permian Marl lying between them, occupied the central part, while to the east lay the alluvium and peat of the river Torne. Only the marl, alluvium and peat could be described as land possibly requiring underdraining, and these represented about 30 per cent of the total area. The estate could not be classed as one predominantly of clayland, and this fact was reflected in soil conditions. Two surveys of 1845 and 1862 emphasised the estate's relatively light-land nature. Tickhill was described as 'mixed land suitable for the growth of turnips and the four course system of husbandry', while the greater part of the estate in Stainton was noted as turnip and barley land of good quality, and only a small part could be classed as clay. A similar situation was recorded in Maltby. A variety of soil types were to be found on the estate, in which light 'turnip and barley' soils tended to dominate. Strong clays were rare and heavier soils were far from being preponderant.⁴

The Chronology of Draining

Records permitting the reconstruction of the development of underdraining survive for the greater part of the nineteenth century with gaps occurring only between 1800 and 1808, and 1855 and 1862. A series of estate accounts exist for the hereditary, purchased and crown estates between 1809 and 1854, and 1863 and 1899.⁵ These do not record the

¹ Sandbeck Muniments Room (=SMR), EMS/37, Survey and Valuation of the Yorkshire Estate, 1813; EMS/41/1 & 2, Survey, Valuation and Report upon the Sandbeck Estate . . . by William Downes, 1845; EMS/45, Report and Valuation of the Yorkshire Estate . . . by Messrs. Vessey and Son, 1862; EMS/47, Particulars of Property belonging to the Rt. Hon. the Earl of Scarborough, 1896; T. W. Beastall, 'A South Yorkshire Estate in the late Nineteenth Century', *A.H.R.*, 14 (1966), 40-44.

² G. E. Cokayne, *The Complete Peerage* (London, 1949 edition), xi, 508-16.

³ J. Caird, *The Landed Interest* (London, 1878), 79-80; D. Spring, *The English Landed Estate in the Nineteenth Century* (Baltimore, 1963), 141-43.

⁴ SMR, EMS/41/1 & 2; 45.

⁵ SMR, EMA/251, Estate Accounts, 1809-13; EMA/252, Estate Accounts, 1813-54, EMA/52, Estate Accounts of the Private Estate, 1833-58; EMA/255, Ledger of Estate Accounts, 1861-86; EMA/85, Ledger of Estate Accounts, 1878-98.

area of land drained but list expenditure on draining. A series of draining accounts exist for the period 1863 to 1883, which besides noting draining expenditure also record



FIG. 2. Geology and Land Drained.
(Sources: SMR., EMS/45; EMA/78; EMDP/7; Estate Maps Nos. 9, 25, 43, 45; 1" Ordnance Survey Drift Geological Sheets 87, 88, 100, 101).

acreage drained.¹ Throughout the nineteenth century, draining activity can be expressed in terms of the amount spent on the improvement, but only between 1863 and 1883 can it be expressed in terms of the acreages drained.

Estate-financed underdraining developed late on the estate. Before 1840, little was spent on the improvement, with the mean annual expenditure on draining never exceeding £19 in any one decade between 1810 and 1839. Only in 1840 did underdraining become a regular feature of estate outlay (Table II). After 1840 and up to 1854 when the accounts temporarily cease, draining was established as a normal part of estate improvement. (Graph I). In this 15-year period 22 per cent of the total recorded draining outlay occurred, providing a mean annual expenditure of £146. However, these figures may underestimate the extent of draining in this period, for expenditure was only in terms of tiles and allowances, with the tenant being expected to contribute to the cost. After 1863, when the accounts restart, there was an expansion in draining expenditure on the estate, and between 1863 and 1883, 73 per cent of the total sum spent on draining was recorded, with a mean annual expenditure of £333 during this 21-year period. After 1883 expenditure declined rapidly, the improvement hardly being undertaken.

TABLE II
DRAINING EXPENDITURE

Decade	Total expenditure in £	% of total	LANDLORD			TENANT	
			% on tiles	% on labour	% of total	% on tiles	% on allowances
1810-19	193	—	—	—	100	34	76
1820-29	6	—	—	—	100	—	100
1830-39	127	6	—	6	94	57	37
1840-49	1635	65	33	32	35	23	12
1850-54	560	25	12	13	75	35	40
1863-69	3259	24			76		
1870-79	1735	62			38		
1880-89	2394	9			91		
1890-99	148	—			100		

(Sources: SMR, EMA/52; 78; 83/1-19; 85; 251; 252; 255; EMBA/2/1; EMDP/7)

This chronology is based on draining financed by the estate. Tenant-financed draining may upset this general pattern, but there is little evidence of this activity. After 1840, no draining was financed by the tenants alone, while prior to that date, an examination of tenant-right valuations reveals a lack of tenant draining. The 1845 estate survey noted that 'the great defect upon this property is that of water, portions of the land being wet and requiring underdrainage', suggesting that little draining of any sort had been done previously.² In general, the pattern of estate-financed draining would seem to be an accurate reflection of all draining on the estate.

This temporal pattern of draining may be related to several factors. The neglect prior to 1840 was a feature common to the majority of English estates, as was the revival of interest after 1840, being related to the availability of cheap draining materials and a

¹ SMR, EMA/83/1-19, Expenditure Accounts under the Lands Improvement Company; EMBA/2/1, Account of Improvements carried out . . . from 1861; EMA/78, Draining Accounts, 1867-83; EMDP/7, Draining Accounts, 1863-66.

² SMR, ETE/7, Tenant Right Valuations, 1824-1905; EMS/45.

wealth of published material on the improvement. But although draining was established on the estate after 1840, the relatively low level of activity up to 1854 shows that it was not widely adopted. The estate in 1845 was described as being in need of draining, while in 1862 'a considerable part' still required draining. The slow spread of draining corresponded to a general lack of improvement on the estate and the 1862 survey noted 'that the management of the estate as a whole had been for many years past much neglected'.¹ The expansion in draining activity after 1863 was an attempt to remedy this neglect. As the 1862 survey recorded, a considerable outlay was required before the estate could be brought into such a satisfactory condition 'as befits the domain of a nobleman'.²

Draining activity in the early 1880's was related to various factors and not simply to make good past inattention. The main concern was to help the tenantry in a time of difficulty. During the latter part of the 1870's and the early part of the 1880's, the estate agent, H. V. Tippet, made constant reference to excessive rain and the wetness of the land.³ Draining in this period can be seen as an attempt to improve the physical condition of farmland. But in the 1880's the profitability of farming on this estate came into question. Gross rent due on the estate slumped after 1879, and Tippet wrote in 1879 that 'something ought to be done to create confidence' or farms would be given up.⁴ Draining may be viewed also in the early 1880's as an attempt to offset the beginnings of agricultural depression. Thus, between 1863 and 1875 when gross rent due was rising, draining expenditure represented 8 per cent of the gross rent due, while it represented 15 per cent of the gross rent due between 1880 and 1883 when rent was declining.

The neglect of draining after 1883 may be seen partially as a reflection of the continuing low level of agricultural rents, but other factors were involved. The amount of land that could be drained on the estate was limited, and a large area had been drained between 1863 and 1883. The lack of draining after 1883 may not simply have been a result of economic conditions, but also the product of the fact that all the land capable of draining had already been treated.

The Amount of Land Drained

The nature of the documentation provides 2 main periods of draining, 1840 to 1854 and 1863 to 1883, and the amount of land drained in each will be discussed separately. Between 1840 and 1854 £2,195 was spent on draining, representing 13s per cultivated acre for the whole estate. As draining cost between £5 and £6 an acre in this period, an indication of the small area of land drained is given. But the expenditure between 1840 and 1854 requires some adjustment. Of the total amount spent in this period, £1,206 or 55 per cent went on draining land in hand, Sandbeck Park, at the rate of 38s per acre, while the remaining £989 or 45 per cent was used on the tenanted estate at the rate of 7s per cultivated acre. Up to 1854 a far greater attention was paid to draining land in hand, while the tenanted estate was neglected, with only a small proportion of its acreage being treated. No records exist of the amount of land drained between 1855 and 1862, but it would seem that little advance was made, for in 1845 the estate was described as being greatly in need of draining and the same requirement was noted in 1862.

Between 1863 and 1883 a more concentrated attack was made on draining land. In 1862, of the total cultivated acreage of 4,231 acres, 773 acres or 18 per cent required draining. On the tenanted cultivated land of 3,735 acres, 472 acres or 13 per cent required draining.⁵ In reality more land was drained. Between 1863 and 1869, 719 acres were drained, 290 acres between 1870 and 1875, and 344 acres between 1880 and 1883, a total of 1,353 acres, representing 32 per cent of the cultivated estate (Fig. 3). But 23 per cent

¹ SMR, EMS/41/1 & 2; 45.

² SMR, EMS/45.

³ SMR, EMC/151a, Letter Books, vol. 12, H. V. Tippet to Earl of Scarbrough, 22 May 1878; vol. 13, H. V. Tippet to Earl of Scarbrough, 13 October 1880.

⁴ SMR, EMC/151a, Letter Books, vol. 13, H. V. Tippet to Earl of Scarbrough, 29 May 1879.

⁵ SMR, EMS/45.

of the drained area was land in hand in Sandbeck Park. If this amount is removed, 28 per cent of the tenanted land was drained. Although the amount of land drained prior to 1862 was small, by 1883 about one third of the estate had been so improved, virtually twice the extent recorded as requiring draining in 1862.

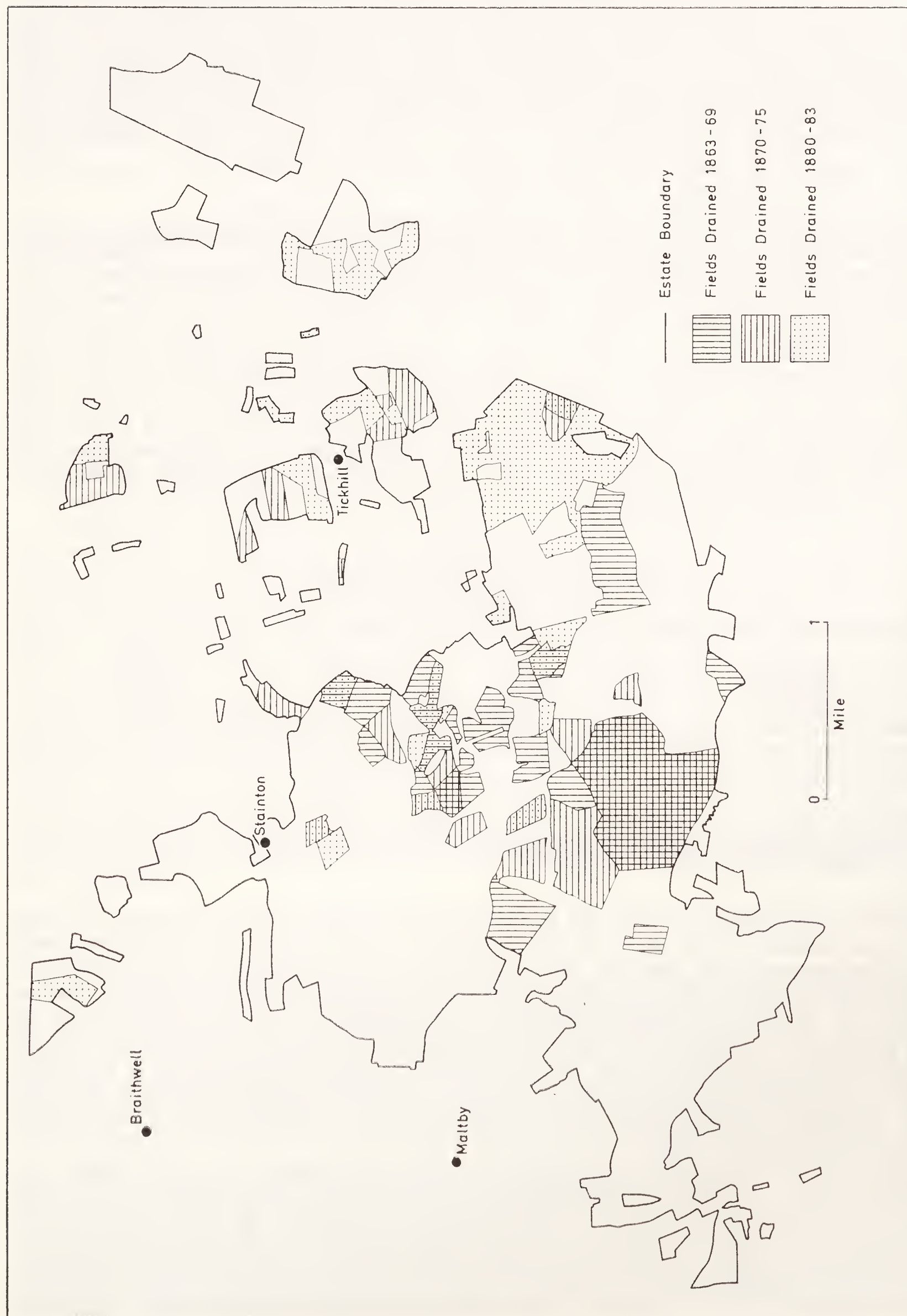


FIG. 3. Land Drained.

(Sources: SMR., EMS/45; EMA/78; EMBA/2/1; EMDP/7; Estate Maps Nos. 9, 25, 43, 45).

The Type of Land Drained

The location and type of land drained may be explained by an examination of geology, soils, tenurial patterns, and land uses and land values. Analysis of draining along these lines before 1854 is difficult, for the material available only records the amount spent on draining by farm. As a result draining prior to 1854 can only be discussed in terms of tenure. Between 1820 and 1839, all expenditure with the exception of £8 was for draining the purchased estate. After 1840 expenditure began to be made on the hereditary estate, and only the crown estate was neglected and remained so until after 1863. Before 1854, draining expenditure was at the rate of 9s per cultivated acre on the purchased estate, while on the whole of the hereditary it was at 12s per cultivated acre. Variations in tenure appeared to have little effect on the amount of draining, and in general the improvement was neglected on all three estates.

A more elaborate picture of the location of draining with regard to tenure may be constructed between 1863 and 1883. Of the 3,048 cultivated acres of the hereditary estate, 942 acres (31 per cent) were drained; of the 660 cultivated acres of the purchased estate, 238 acres (35 per cent) were drained; and of the 523 cultivated acres of the crown estate, 173 acres (33 per cent) were drained (Fig. 1). But in terms of land requiring draining in 1862 vast differences were recorded. Then, 23 per cent of the hereditary estate was described as needing draining, but only 4 per cent of the purchased estate and 6 per cent of the crown estate. An under-estimate was made as to the amount of land requiring draining on the two smaller estates, although in the intensity of draining carried out there was little variation on all three estates. This pattern reveals that between 1863 and 1883, when all three estates were held by one person, the distinctions between the types of tenure had little influence on the location and the amount of land drained.

TABLE III
SOIL TYPES DRAINED, 1865-1883
(in acres)

Period	Acreage drained with soil described	% Clay	% Clay & Stone	% Clay & Gravel or Sand	% Clay & Limestone	% Loam	% Limestone	% Open Soil, Sand & Gravel	% Peat
1865-75	853	42	45	1	1	8	3	—	—
1880-83	324	17	36	3	14	4	—	11	15

(Sources: SMR, EMA/78; EMDP/7; EMFA/14)

In terms of geology and soils, the greater part of the land drained between 1863 and 1883 was located on the areas of marl, alluvium and peat, which would have been naturally heavy and wet (Fig. 2). After 1865, the draining accounts record the type of soil drained, and from these it is clear that mainly clays and heavier soils were drained (Table III). But the relationship between land drained and heavy soils must not be over-emphasised. Lighter soils were recommended to be drained and often were, as Table III reveals. Again, the 1845 estate survey recorded 508 acres that could be classed as thin, poor and light land. Yet of this total 17 per cent was drained between 1863 and 1883. However, in general terms, the connection between draining and the heavier and wetter soils cannot be denied.

Draining was regarded by contemporaries as an improvement for arable land. The 1845 estate survey emphasised the advantages that draining gave to such land: the strong corn lands of Maltby only required underdraining 'to bring forth abundance of produce'. But the surveys of 1845 and 1862 indicate that both arable and pasture required draining. Of the 606 acres noted as requiring draining in 1845, 42 per cent was arable and 58 per cent pasture, while of the 472 acres of tenanted land needing draining in 1862, 38 per cent

was arable and 62 per cent pasture. But although there was a concentration on pasture as land requiring draining, between 1863 and 1883 the greater part of land drained was arable. Of the 1,039 acres of tenanted land drained, 63 per cent was arable and 37 per cent pasture. But the relationship between arable and pasture was not uniform throughout the period. Between 1863 and 1875, 68 per cent of the land drained was arable and 32 per cent pasture. But in the four years 1880 to 1883, 54 per cent of the land drained was arable and 46 per cent pasture, perhaps a product of the excessively wet conditions of the period when the main aim was to make land dry. Draining was predominantly an arable improvement, and this connection reflected the arable concern of the estate as a whole (Table IV).

TABLE IV
LAND USE ON ESTATE, EXCLUDING PARKLAND

Date	Cultivated Acreage	% in Arable	% in Pasture
1813	3076	76	24
1845	2743	78	22
1862	3735	76	24
1896	3566	71	29

(Sources: SMR, EMS/37; 41/1 & 2; 45; 47)

Land drained may also be viewed in terms of its value. In 1862 the average value per acre of arable land was 25s, while pasture was valued at a lower level at 22s per acre. Land drained or requiring draining was valued at a lower rate than the average. Of the 185 acres of arable recorded as having been drained by 1862 the average value was 23s per acre, while of the 5 acres of pasture drained the value was 16s per acre. Of the 179 acres of tenanted arable land requiring draining in 1862, the average per acre value was 20s, and of the 293 acres of pasture 17s. The same relationship is also found on land drained between 1863 and 1883. The average per acre value of arable land drained in this period was 23s and 20s for pasture. These lands had always been lower in value than other land on the estate. Thus, in 1813 the average value per acre of arable and pasture was 21s and 19s respectively. But the 1813 value of the land drained between 1863 and 1883 was 20s per acre for arable and 17s for pasture. It would seem that the land drained in the period 1863 to 1883 was poorer than the average throughout the nineteenth century and required the improvement of draining to increase both value and productivity.

The Organisation of Draining

The organisation of draining on the estate was not well developed. The improvement was introduced late, and depended on tenant participation. After 1840 the estate provided either tiles or draining allowances. With the former, the tenant provided the labour of putting in the tiles under the supervision of the estate agent; with the latter the tenant was partially compensated for draining he had carried out. Both these methods relied on the use of tenant capital and initiative. But draining was an expensive capital improvement, costing about £5 to £6 per acre, and its adoption depended *inter alia* on the availability of a large capital fund. Underdraining was a landlord improvement and after 1840 had been accepted as such on many estates in England. The low intensity of draining before 1854 on this estate may partly be explained by the fact that the improvement was still regarded as a joint landlord-tenant activity rather than being entirely in the hands of the landlord. Only with the 1862 survey emphasising the general neglect in the management of the estate and the need for a considerable outlay to bring it into a satisfactory state did draining become fully a landlord improvement.

After 1863, instead of financing the improvement out of the Earl of Scarborough's capital, the agent, noting that such a policy would be unjust to the welfare of the family, contracted a loan from the Lands Improvement Company. The draining carried out between 1863 and 1867, and between 1873 and 1883 was all financed by Lands Improvement Company loans amounting to £5,631, while all the draining between 1868 and 1872 costing £1,568 was privately financed.¹ After 1863 loans accounted for 75 per cent of draining capital. These loans were repayable over 25 years at $6\frac{3}{4}$ per cent interest, and so the advantage existed of draining the estate but repaying the cost gradually. Whatever the source of the funds, the availability of landlord capital for draining in this period encouraged the development of the improvement.

But the tenant contribution was not neglected. From 1863 to 1875 land was drained only if the tenant agreed to pay 6 per cent interest on the outlay, which was added to the rent.² In theory, therefore, the draining of the estate was mainly being financed by the tenantry in the form of interest on the draining outlay, with the landlord in the case of the Lands Improvement Company loans paying the remaining $\frac{3}{4}$ per cent interest. Only after 1880 did the estate take full responsibility for draining. With the onset of economic difficulties all draining was executed free of interest.³

The Results of Draining

The success of draining may be examined in terms of physical efficiency, changes in cultivation and financial return on landlord investment. Before 1854, tiles and soles were the main draining material, with stone being rarely used. Drains on the recommendation of the Earl of Scarborough were made 2 ft. 6 ins. to 3 ft. deep and on average 7 yds. to 10 yds. apart.⁴ These drains appeared to have a relatively short life. All those farms with draining expenditure before 1854 had large areas of their land drained between 1863 and 1883. Of the 130 acres recorded as being drained in 1845, 34 per cent had to be redrained between 1863 and 1883, and of the 190 acres recorded as being drained by 1862, 28 per cent had to be redrained between 1863 and 1883. Draining carried out before 1854 was not always effective.

As the greater part of draining after 1863 was financed by an improvement company loan, the supervision of the improvement was mainly in the hands of the Inclosure Commissioners. Pipes replaced tiles, with 2 ins. diameter pipes being the smallest and most commonly used, thus avoiding the blockage difficulties encountered with 1 in. pipes. Depth of drain did not change greatly over the twenty-year period. Drains averaged 3 ft. 6 ins. deep for all soils, apart from limestone and open soil areas which were drained at the shallower depths of 2 ft. 6 ins. and 3 ft. Variations occurred in the distances apart of drains according to soil type. Soils of clay, clay and stone, and clay and limestone were drained between 8 yds. and 10 yds. apart, while the remaining areas, tending to be lighter soils, were drained at wider intervals from 12 yds. to 22 yds. apart (Table III). Throughout this period there is no evidence of draining failure. A little repair work was necessary and between 1884 and 1899 £32 was spent on repairing drains. But there was no collapse of the system and it would seem that the draining carried out between 1863 and 1883 remained effective until the end of the century.⁵

There is a lack of evidence for detailed comments on changes in cultivation that may have been brought about by draining. No information exists on yields or cropping practices. But the existence of estate surveys permits an examination of changes in the land-use of drained land. Throughout the century there had been little change in land-use

¹ SMR, EMBA/2/1; EMDP/7; EMA/83/1-19.

² SMR, EMR/39, Journal of Yorkshire Estate Rent Increases, 1871-83.

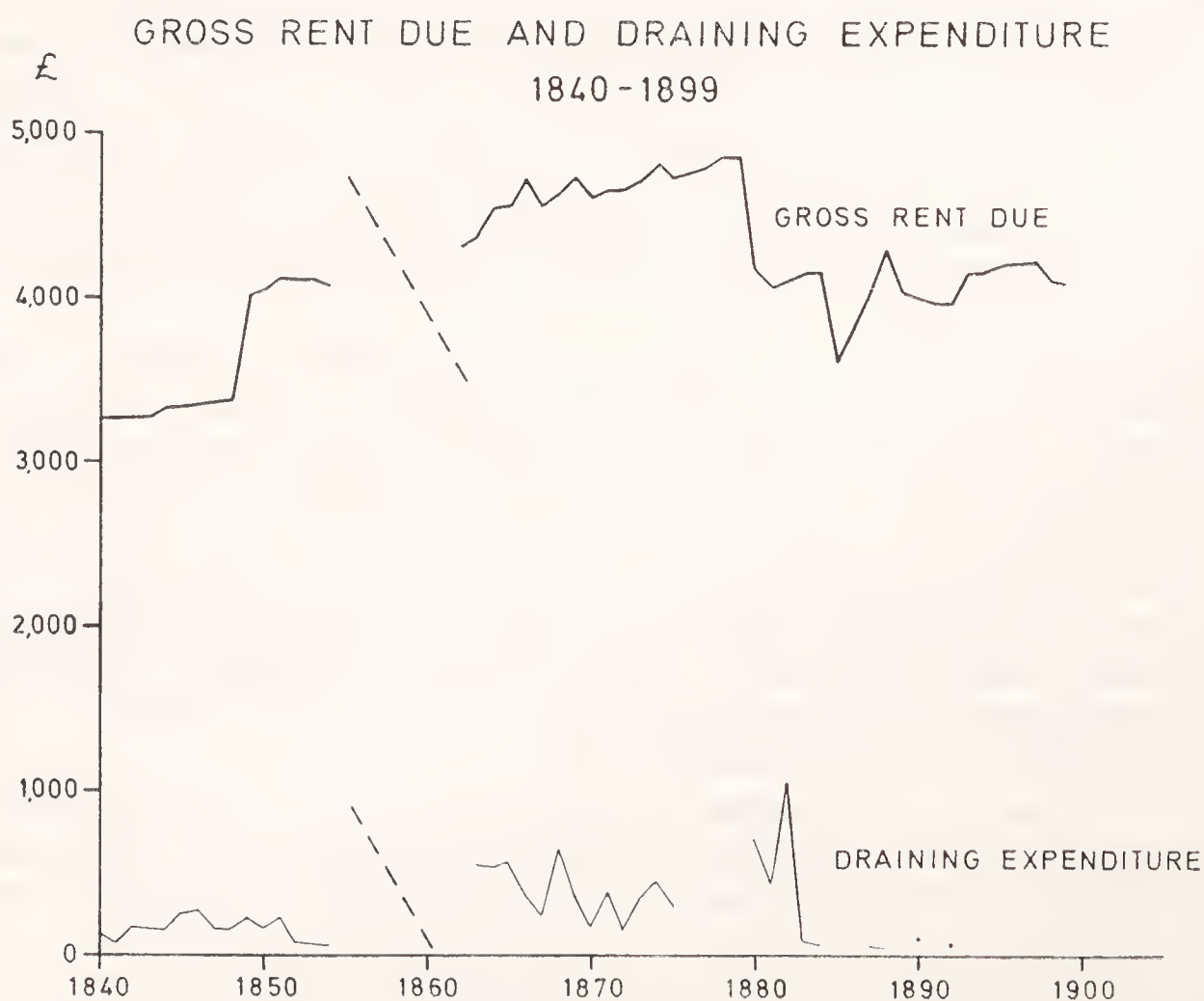
³ SMR, EMR/39; EMR/41, List of Rents from 1878-88.

⁴ SMR, EMC/124/36, Letter from Earl of Scarborough to J. Ellison, 11 December 1843; EMC/150/42, Letter from Earl of Scarborough to J. Ellison, 8 March 1850; EMS/41/1 & 2.

⁵ In connection with draining efficiency, Hooper, in a forthcoming paper, has argued that drains could be so effective in drying land as to cause the extinction of a number of plants dependent on a high-water table, especially between 1880 and 1889: M. D. Hooper, 'Underdraining Claylands: Some Botanical Evidence', *A.H.R.*, (forthcoming).

on the estate as a whole. Even with agricultural depression after 1880, the arable acreage in 1896 was only 5 per cent lower than it had been in 1862 (Table IV). Draining carried out between 1840 and 1854, and between 1863 and 1883 would seem to have produced little change in land-use on the estate. This fact is even more emphasised when the land-use of the area drained in the period 1863 to 1883 is analysed. In terms of 1862 land-use, 63 per cent of the land drained was arable and 37 per cent pasture. In 1896, 65 per cent of the drained area was arable and 35 per cent pasture. These figures reveal that in spite of draining, the proportion of arable to pasture remained the same: there was conversion neither from pasture to arable nor *vice versa*. Although draining was primarily an arable improvement, it was not aimed at increasing the acreage of arable land. The main intention was to dry wet land, both arable and pasture and thereby increase productivity.

Perhaps the most accurate way in assessing the financial return on landlord investment would be by examining the increased value of land after draining. The 1845 survey claimed that with draining the value of land rose by 5s per acre. But as the 1896 survey does not record land value, it is impossible to discover if the draining between 1863 and 1883 brought such an increase. Draining must, therefore, be examined in terms of rent.¹ The total expenditure on draining tenanted land between 1840 and 1899 represented 4 per cent of the total gross rent due, a relatively high rate of investment. This investment occurred at varying intensities, with draining outlay being 2 per cent of the gross rent due between 1840 and 1854, 8 per cent between 1863 and 1875 and 15 per cent between 1880 and 1883 (Graph 1).



GRAPH 1.

(Sources: SMR., EMA/252; EMR/32; EMA/52/1-24; EMA/70/1-34; EMR/40/1 & 2; EMA/78; EMBA/2/1; EMDP/7).

Draining expenditure in the first period brought little return in the form of increased rent. The amount spent was small and no interest was charged to the tenants. Increase in rental in this period was due to revaluation rather than to returns from improvement

¹ SMR, EMA/252, Estate Accounts, 1813-54; EMR/32, Rentals of Hereditary Estate, 1857-77; EMA/52/1-24, Rentals of Crown and Purchased Estate, 1833-57; EMA/70/1-34, Rentals of Private Estate, 1862-78; EMR/40/1, Rentals of Yorkshire Estate, 1878-84; EMR/40/2, Rentals of Yorkshire Estate, 1885-1908.

outlay. Even between 1863 and 1875, the main period of draining activity, the improvement provided little increase in rent. In these 13 years, £4,994 was spent on draining while the gross rent due increased by only £363, representing a return on draining outlay alone of 7 per cent. This return was low, especially when it is remembered that improvements other than draining were undertaken during this period and would have added to the rise in rent. Draining in the 1880's was carried out in a period when rents were declining. No interest was charged on the improvement in this period and there was no rental return on the amount spent. In general, throughout the whole period the amount of direct rental return to the landlord as a result of draining investment was negligible.

CONCLUSIONS

Concentrated draining activity was a late development on the estate and was really a product of the second half of the nineteenth century, the 20 years, 1863 to 1883. Before and after this period the improvement was neglected. Its occurrence may be associated with the latter part of the era of 'high farming'. Only about 30 per cent of the estate was drained. In absolute terms this was not a great amount, but it was virtually the area that was occupied by marl, alluvium and peat, the parts of the estate naturally heavy and wet, and the drained acreage exceeded the amount of land that had been classed as being in need of draining. Contemporaries considered that draining had been neglected on small estates, a product of lack of capital.¹ But although the general management had been backward prior to 1862 and recourse had to be made to improvement company loans, this small estate must be regarded as being well drained.

Land drained revealed certain trends. Draining was aimed primarily at improving arable land, especially that which was heavy and lower in value than the average. It was an attempt to upgrade poor arable, for these areas offered the greatest opportunity for increased returns. But, though less important, pasture was also drained with the lower valued land being treated; while it was often thought worthwhile to drain lighter lands, these occupying 11 per cent of the drained area. Soil conditions, land use and land value were the important factors in draining, and land tenure had apparently no effect on the location of the improvement.

Draining produced little change in land-use. It brought no marked conversion from arable to pasture, and no evidence exists of draining as a means of introducing new cultivation practices. Draining was adopted to improve and ensure the yields of existing crops, and as the improvement was effective, it may be assumed that this end was achieved. But in spite of its efficiency, draining brought no direct financial return to the landlord. This lack of return was mainly the product of the late date of carrying out the improvement, with completion coinciding with the beginning of agricultural depression. But the fact that the estate could offer farms with all wet land drained must have provided important, if unmeasurable, indirect advantages in the form of retaining tenants and offsetting the possibility of extreme falls in rent.

The results of draining on this estate reveal that only a few of the benefits that nineteenth-century agriculturalists believed the improvement could bring were realised. Only in the provision of good cultivable land on wet parts of the estate and increased yields on that land was success to be found. Changes in land-use, the adoption of more productive systems of husbandry and financial return to the landlord in terms of increased rent, all as a result of draining, were absent. Whether these results are typical of similar sized or of all estates in the country is beyond the scope of this paper. However, through the analysis of draining on estates of different size and location, the significance of the improvement in nineteenth-century agriculture may be calculated.

ACKNOWLEDGEMENTS

Access to the estate papers in the muniments room of Sandbeck House was kindly given by the late Earl of Scarborough. The author wishes to thank Dr. A. R. H. Baker for his comments on this paper. The illustrations were drawn by Miss E. Smith of the Cartographic Unit of the Department of Geography, University of Keele.

¹ B.P.P., *Report by F. A. Channing, one of Her Majesty's Commissioners appointed to inquire into the subject of Agricultural Depression*, (1897), xv, 287.

PARLIAMENTARY REPRESENTATION IN THE BOROUGH OF RICHMOND

By R. T. FIELDHOUSE

‘The Gentry have as many followers among voters at the Election as they ever had’
– the Duke of Wellington after the 1832 Parliamentary reform.

This article¹ demonstrates in detail how a sixteenth-century parliamentary borough was transformed into an eighteenth-century pocket borough, and how the ruling class was able to ride out the nineteenth-century Whig reforms and retain its hold on the reins of power. The analysis of population in the 1830’s emphasises the importance of some of the more neglected clauses of the 1832 Reform Act as they affected the borough franchise.

Richmond, in the North Riding, lies on the dividing line between the Pennine dales and the Vale of York. It was an important market for the exchange of produce between the arable lands to the east and the pastoral farms to the west. There was no significant industry but it was within ten miles of the Swaledale leadmines. The population of the parish was 3,900 in 1831, and it had been growing steadily since the beginning of the century. This growth was attributed largely to the number of people retiring to the town. The shops and houses had greatly increased in number and respectability in the previous 20 years.²

Under the early charters granted to the Borough by the Earls of Richmond the burgesses were exempt from the necessity and expense of sending representatives to parliament. They claimed this privilege when summoned to parliament in 1294 and again in 1328.³ But the increasing awareness of the importance of parliament in the sixteenth century led the burgesses to petition Queen Elizabeth to regrant the right of parliamentary representation to the borough. This was done in 1576⁴ and Marmaduke Wyvill and John Pepper were returned to the following parliament in 1584. Richmond continued to send two representatives until 1868, when the number was reduced to one. The Borough finally lost its parliamentary status in 1884.

The Elizabethan charter enfranchised the ‘Alderman (i.e. mayor) and Burgesses of Richmond’. In 1668 Charles II confirmed this franchise in a new charter.⁵ 16 years later, the charter was amended and a clause inserted debarring all burgesses who had not paid ‘lot and scot’ from voting.⁶ Although James II later withdrew the 1684 amendments the franchise was in fact restricted to those householders and tradesmen who paid local taxes and rates during most of the seventeenth century and an indication of the size of the electorate is provided by the 1678 election result:—

Thomas Cradock, Recorder of Richmond	245
Humphrey Wharton of Gilling Wood, Esq.	244
Colonel Marmaduke D’Arcy	96

Thomas Cradock and Humphrey Wharton were duly returned to Parliament and if it can be assumed that most of the electors cast two votes, the total electorate was at least 293, probably substantially more, taking into consideration that before the election an

¹ The article is based on research undertaken by members of the Richmond WEA Local History tutorial class, 1968–72. I am especially grateful for the help of Mr. F. W. Hulse.

² C. Clarkson, *History of Richmond*, 1821, pp. 403–21; *Returns Relating to Parliamentary Representation*, H.C. 105 (1831), xvi, p. 231; *Parliamentary Representation, Returns of Boundaries Commissioners*, H.C. 141 (1832), xi, pt. v., pp. 157–8.

³ Clarkson, *op. cit.*, p. 112.

⁴ C. K. C. Andrew, unpublished translation of the Charters of the Borough of Richmond.

⁵ *Ibid.*

⁶ *Ibid.*

agreement was made, stating *inter alia* that 'no widows should vote, it being against common right, but that widows should have power to assign their right to other persons (whereupon Mr. Wharton had 30 assignments) . . . [and] that neither minors nor their guardians could vote . . . ' Owners of divided or demolished burgages were also not admitted to vote.¹

There was apparently some doubt and confusion before each election as to the correct interpretation of the charter concerning who was entitled to vote, and so in 1679 an effort was made to regularise the position by making an enquiry and entering into the Borough Book all the known original burgage houses. By defining the term 'burgess' in the charter to mean the owner of one of these burgage houses, a narrower franchise was established than had probably been intended in 1576.²

When the Whitcliffe common pasture was enclosed in 1696 the owners of burgage houses were invited to pay seven shillings towards the expense. This subscription earned the burgesses the right to graze a couple of cows on the pasture in perpetuity: a privilege which some of those not interested in farming did not bother to buy. What was probably no so explicit at the time was the fact that by failing to subscribe to the cost of enclosure, these burgesses were forfeiting *all* their burgage rights – including the right to vote, and only the 267 cow-keeping burgesses were considered enfranchised. Subsequently six more were added, making a total of 273 which remained the size of the electorate until the passing of the 1832 Reform Act.

An indication of the social status of the electorate can be obtained by comparing the 1673 hearth tax for the borough of Richmond³ with the 1679 enquiry into burgage properties. 124 of the 226 burgage owners listed in the 1679 survey can be positively identified in the hearth tax. Assuming that the number of hearths a man paid tax on is some guide to his wealth, it is clear that the electorate consisted largely of the more wealthy inhabitants of Richmond. Whilst 20 per cent of the total population of the town was taxed on four or more hearths, the figure was 39 per cent for the burgage owners. Conversely, whilst 47 per cent of the total population had but one hearth, only 22 per cent of the burgage owners were as badly off.

This electorate not surprisingly chose the 'more substantial' members of the community to represent them, such as Lord Holderness' brother, Mr. D'Arcy, and Mr. Yorke, the owners of the 'two good houses in the town' who both stood and were chosen for parliament in 1698;⁴ but with the franchise now firmly attached to certain properties – not even houses, but the sites of houses even after they had been demolished – the way was open for wealthy families to purchase the votes and pocket the parliamentary seats.

In 1679 only 26 of the electors owned more than one burgage property and therefore commanded more than one vote. Christopher Smithson with seven was the most powerful, followed by Thomas Yorke, John Metcalfe and John Kay each with four; John Cowling and T. Bowes' heirs with three each, and the others with just two. The vast majority of the electorate owned only one burgage, although families frequently possessed several between them. For example, the Cowlings held four more in addition to John's three and the Smithsons had a further two. The Yorke and D'Arcy families, later to become so powerful, owned only five and two properties respectively.⁵

The ownership of these burgage houses was the key to control of the Richmond elections and gradually they were bought up and concentrated in the hands of a few families. At the beginning of the eighteenth century there were four families contending for the control of Richmond electorally: the Wyvills of Constable Burton, who had maintained an interest since the commencement of Richmond's parliamentary representation in 1584; the D'Arcys, owners of property in Richmond and Gilling, whose patriarch was Lord Holderness; the Yorkes, a Nidderdale family now settled in Rich-

¹ Clarkson, *op. cit.*, p. 117.

² Clarkson, *op. cit.*, appendix xxi, pp. liii–lxv.

³ P.R.O. E.179/216/462.

⁴ C. Morris (ed.), *The Journeys of Celia Fiennes*, 1949, p. 218.

⁵ Clarkson, *op. cit.*, appendix xxi.

mond; and the Whartons who owned the manor of Aske at this time. Thomas, the fifth Lord Wharton, was a leading statesman of the Whig party. He was created Comptroller of the Royal Household and a Privy Councillor in 1688 and his political activities earned him an earldom in 1706. Eight years later he became Lord Privy Seal and Marquis of Wharton and Malmesbury. He was 'an unequalled and unscrupulous adept in the art of electioneering' who reputedly spent some £80,000 on his art.¹

In 1704 Lord Wharton wrote of making use of any interest he might have in Richmond 'for ye service of those I have reason to think will faithfully serve ye publick.' He claimed to be 'always glad of any occasion of shewing my service for my Lord Holderness and his Brother to whom I have ye honour to be related . . . ' but when he heard that Lord Holderness did not want a seat for his brother he put himself to considerable trouble and expense to oppose James D'Arcy whose behaviour he did not like.² The feeling was mutual. When one of the seats was won by Lord Wharton's nominee, Wharton Dunch, James D'Arcy petitioned parliament, alleging that legal votes had been refused, illegal ones admitted, burgages had been split to multiply votes and Lord Wharton had meddled in the election, using bribery and corrupt practices.³

The Whartons shared their influence in the Borough with the Yorkes who had acquired property in Richmond after John Yorke married the daughter of Maulger Norton of St. Nicholas in 1658. The Yorkes built a large mansion on Bargate Green which was the principal family seat for more than a century. John Yorke's son Thomas was first elected for Richmond in 1688 and sat for much of the next 28 years until his death in 1716. He was the other successful candidate with Wharton Dunch in the controversial election of 1705.⁴

Between 1704–1711 Lord Wharton bought as many burgage properties as he could, and also used his court influence to obtain a commission in Marlborough's army for Henry Chaytor in return for Chaytor's burgage houses in Richmond. Lord Holderness was also purchasing burgages in the early eighteenth century and by 1718, probably earlier, the Yorkes owned about 20 such properties.⁵ Thus these three families were struggling for supremacy. For a while the Whartons and Yorkes held sway, although apparently not without some dubious practices. After the controversy of the 1705 election, Marmaduke Wyvill claimed that 'notorious bribery' was again used in 1714 to secure the election of Thomas Yorke and Henry Mordaunt. He alleged that several people were admitted to vote who had no right of election because they were not real owners of burgage tenures. His complaint was referred to the Committee of Privileges, but no report was ever submitted.⁶

It is obvious that control of the Corporation was important because the mayor acted as returning officer and also determined who should vote, which was still by no means clear. Lord Wharton was the most successful in influencing the Corporation and gradually the Wharton power became paramount. But after the death of the first Marquis in 1715 he was succeeded by his son Philip,

' . . . the scorn and wonder of our days
Whose ruling passion was the lust for praise.'

He was far less stable than his father and quickly encumbered his estates with debts. He was wooed by the Whigs – who created a dukedom for him in 1719 – but he turned Tory. In 1722 the Court of Chancery vested his estates in trustees for the payment of his debts and gradually these were sold off. In 1723, at a drunken party in Swaledale, he drank the Pretender's health in the name of James III of England and obliged the 60-odd country people present to do the same. In 1725 he went abroad and soon openly

¹ R. Dale, *The Good Lord Wharton*, 1906, pp. 43–46; Clarkson, p. 120.

² N(orth) R(iding) C.R.O, ZAZ: Letter from Lord Wharton, 1 Dec. 1704.

³ Clarkson, pp. 117–8.

⁴ Yorke records, 1139/14. E. Yorke, unpublished *History of the Yorke Family*, written in 1896. I am very grateful to Mr. and Mrs. J. E. E. Yorke for access to the Yorke family papers. These have been listed by the National Register of Archives (1969) and are hereafter referred to as Yorke records.

⁵ N.R.C.R.O, ZNK (deeds); Yorke records 851 and 1139/14.

⁶ Clarkson, p. 118.

espoused the Jacobite cause, became a Roman Catholic and served in the Spanish army in an attack on Gibraltar. He was eventually attainted for high treason in 1729 and died in poverty two years later.¹

Sensing the power vacuum which the Duke of Wharton's activities were causing in Richmond, John Yorke II sought another ally and 'entered into a strict league and union to support each other's interests' with Lord Holderness and Sir Conyers D'Arcy on 6 June 1721. They agreed that every burgage house belonging to the D'Arcys should for ever give one vote for the Yorkes and vice versa, and also that before the next election Sir Conyers should lay out £2,000 and John Yorke £1,000 to be made use of for ever for their joint family interest. Lord Holderness and Sir Conyers D'Arcy had already been buying a considerable amount of property in Richmond, but more houses were purchased within the next few years, including many of the Wharton houses in 1727. Cuthbert Allen, who had bought some houses for Sir Conyers in 1712, released these to him in 1727. Meanwhile, in November 1721 Lord Holderness wrote to John Yorke saying that he was 'glad our affairs go on prosperously.' The union of the two families was later claimed to be the instrument by which 'ye interest of ye Wharton family was overturned' although the Duke's erratic political career was certainly a contributory factor.²

The death of George I in 1727 caused an election earlier than the D'Arcy-Yorke union wished. The Aske estate, including the Wharton burgage houses, was up for sale and John Yorke contemplated some kind of interference to prevent a rival gaining undue influence but Sir Conyers advocated caution: in the event he bought the estate himself! Meanwhile he advised John Yorke to be watchful against an attack on their interests in Richmond. This was mounted by the Wyvills with the co-operation of the mayor, William Davile, who claimed that the restricted franchise was contrary to the terms of the 1668 charter. Returning to an earlier definition of the word 'burgess' he admitted all freemen of the guilds to vote. He was later accused also of creating new burgages and disqualifying old ones. The result was that Charles Bathurst, a progressive but eccentric man with leadmining interests in Swaledale, and Marmaduke Wyvill defeated John Yorke and Sir Conyers D'Arcy at a poll of 823 votes. Yorke and D'Arcy petitioned Parliament and also lost no opportunity in applying to 'such as are likely to be of service to our cause.' Sir Conyers anticipated, on 5 October, 'that our worthy friend Matt (Mathew Wyvill) and his mayor may meet with a warm reception at the Bar of the House . . . ' The Commissioner of Stamps had told him there were nearly 30 people admitted freemen of Richmond without stamped papers and that an action lay against the persons whose business it was to enter them. Whilst this was a threat to Wyvill and Davile, Sir Conyers warned John Yorke to see that their agent, Mr. Close, made sure that all their supporters were properly entered on stamp paper. The House unseated Wyvill and Bathurst and resolved that the right of election was for 'the owners of ancient burgages . . . having a right of pasture in a common field called Whitcliffe pasture.' Thus the process of restricting the franchise, which had gone on since Richmond's incorporation in 1576, was completed by Parliament in 1727. Henceforth even the mayor and aldermen, who had been specifically enfranchised in 1668, were without a vote unless they possessed specific burgage houses. There were in fact no more contested elections until the reform of parliament, 105 years later.³

By 1730 Sir Conyers D'Arcy was expressing pleasure at the unanimous favour his Richmond friends had shown him and interpreting this as an indication of the future peace and tranquility which he and John Yorke might expect. The union lasted for a further 30 years, during which time the two families represented the Borough. But in the early fifties the D'Arcys purchased additional burgage properties contrary to the agreement, until they commanded a majority in their own right. Therefore it was with apprehension that John Yorke's brother Thomas wrote to Sir Conyer's nephew, Lord Holderness, in 1759 that ' . . . as a general election is not far off . . . I hope I may rely

¹ Dale, *op. cit.*, pp. 48–55; Hist. MSS. Comm, *13th Rpt*, appendix vii, p. 123.

² Yorke records, 1139/7 and 14; N.R.C.R.O., ZNK (deeds).

³ Yorke records, 1139/8 and 9; Clarkson, pp. 118–9. *Returns Relating to Parliamentary Representation*, H.C. 85 (1831), xvi, p. 139.

nothing at ye nexte or any future election will be done to violate ye union between the two families so long established . . . ' Thomas Yorke's fears were well founded for he lost his seat at the ensuing election. In January 1761 he wrote to the mayor of Richmond complaining that he was 'not thought worthy by those into whose hands ye power is now fallen' to represent the Borough any longer. He was the last of the Yorkes to be returned for Richmond.¹ But the D'Arcys did not retain undisputed control of the parliamentary borough for long. In February 1763 Lord Holderness conveyed 131 burgages to Sir Lawrence Dundas, newly returned with a fortune from service in India. This was part of a sale of all the Aske and Richmond properties by Lord Holderness to Sir Lawrence. He set about acquiring as many of the remaining burgage houses as possible in the next few years, to ensure complete political control. For example, in May 1766 Thomas Cornforth wrote to Sir Lawrence recommending him to buy a certain house in the market place which would 'give him influence in the Corporation.' By 1773 he owned 160 of the 273 burgages, John Yorke Esq. owned 25 and the remainder were in the hands of men of no political consequence.² For the next century both seats were in the gift of the Dundas family who used their influence for the Whig interest.

How this influence was used is illustrated by three letters written by Lord Dundas to John Robinson Esq. of Richmond in November 1798.³ Lord Dundas wanted a Richmond seat for an Arthur Shakespeare, so the sitting member, Mr. Beauclerk, was requested to apply for the Chiltern Hundreds. On 22 November he wrote from Glasgow to Robinson recommending Shakespeare to the gentlemen burgage holders of Richmond and asking for their votes. He hoped 'there is no danger of any discontent amongst them at present' and also sought Mr. Yorke's support. But six days later he was contemplating setting out for Richmond and talked of making out new conveyances. This was either a threat to evict rebellious tenants or preparation to convey temporary ownership to the loyal ones so that they could vote for Shakespeare in the event of an opposition candidate coming forward.

But on 29 November he received word that it was not necessary for him to travel south as everything was under control and Mr. Wycliffe was prepared to represent Shakespeare who was not able to be present at the election. Lord Dundas explained to Robinson

'The reason which induced me to think of going to Aske was lest our worthy Chief Magistrate . . . with some of his co-adgitors would have attempted to make disturbance in the Borough, in such an event it would have been advisable that my Hand and Seal should have been within call and therefore I wrote to Mr. Estcoart to send the Conveyances. But as you seem to think that everything will go on in the usual manner I shall return to Glasgow tomorrow . . . If Mr. Wycliffe and you will take the trouble to canvass the Burgage Holders and get their promise . . . you will easily know if I shall be wanted . . . Pray make my best compliments and thanks to Mr. Yorke.'

Richmond was amongst the 31 English boroughs with less than 300 registered electors when the Whigs determined to reform parliamentary representation in the 1830's,⁴ but even the official figure of 273 voters was misleading because only the *owners* of burgage houses were enfranchised⁵ and with the Dundas family owning three-fifths of these houses the actual number of electors was considerably less than 273.

In January 1831 Ottiwell Tomlin, the Town Clerk, informed the Parliamentary Commissioners that during the last 30 years 'the number of electors who have voted at any election has not exceeded 40, being chiefly the resident voters; those who are non-resident seldom attending to exercise the privilege.'⁶ (There had really been no contested parliamentary election since 1727.) In July, Thomas Bradley, the mayor, wrote to tell the Parliamentary Commissioners that the number of resident electors within the Borough of Richmond was 41. He suggested that one reason why there were so few

¹ Yorke records, 1139/6, 10 and 14; E. Yorke, unpublished History of the Yorke Family.

² N.R.C.R.O.: ZNK (deed); ZNK/X/1/2; ZNK plan of Richmond (1773).

³ N.R.C.R.O., DC/RM.

⁴ N. Gash, *Politics in the Age of Peel*, 1953, pp. 75-7.

⁵ *Returns Relating to Parliamentary Representation*, H.C. 85 (1831), xvi, p. 139.

⁶ *Ibid.*, H.C. 105 (1831), xvi, p. 143.

resident electors was that many farmers in the neighbourhood purchased burgage houses because this exempted them from paying tolls of corn in the market. Another reason was that many widow ladies retired to Richmond, and of course could not qualify to vote.¹ What the mayor and the town clerk did not mention was that because of the concentration of ownership of burgage houses in the hands of the Dundas family, there *could* not be many more than 41 resident electors.² Richmond was truly a pocket borough.

The number of inhabitants of the constituency, which was smaller than the parish of Richmond, was approximately 3,780 in 1831.³ The first Reform Bill of 1831 stipulated that boroughs of between 2,000 and 4,000 should return only one M.P. A petition from 225 'Clergy, Gentry, Burgage Owners and other Inhabitants' of the borough attempted to show Parliament that Richmond should retain both its M.P.s. They stressed the importance of the town as a cornmarket, a judicial centre, the capital of Richmondshire and the principal town of the Archdeaconry. They claimed that it represented a large area stretching from Durham to Ripon and Kendal to Northallerton, with leadmining and agricultural interests, which returned no other M.P. Therefore they considered the constituency should be enlarged sufficiently to enable it to keep both M.P.s.⁴ The Government was suitably impressed by the petition and the boundaries of the constituency were redrawn to encompass the parishes of Richmond and Easby, giving it a population of 4,722.⁵ The Government may have proved amenable to the arguments of the petitioners because Richmond was a Whig borough, and also because it did represent the rural interests which both major parties were anxious should not be swamped by the newly-represented industrial interests. Richmond continued to send two members to Parliament for another 35 years, to represent the agricultural and leadmining interests of a wide area of northwest Yorkshire, south Durham and east Westmorland.

The Reform Act established a uniform franchise for boroughs. Householders received the vote if they occupied a house of the annual rental value of £10 or above. Any disenfranchised freeholder or burgage tenant could retain his vote during his lifetime, but there would be very few, if any, of these in Richmond. Of the 893 houses in the new constituency, 301 were valued at £10 or above.⁶ This is obviously an increase on the 41-plus voters in the unreformed pocket borough. 6.4% of the population was now theoretically enfranchised.

But there were qualifications to this £10 franchise. Occupation entailed residence for at least one year. Rates and taxes had to be paid and the property rated for the poor rate.⁷ And of course the voter had to be male. In 1835 only about 60% of households in the borough were paying poor rate, although most of the £10 houses would be included in this 60%. But of the 458 rate-payers, 28 had not been resident for one year. Of the remaining 430, 13 were not householders; 91 were female.⁸ This suggests that more than a quarter of the rate-paying householders were disqualified either because they had not lived in Richmond for a year, or because they were female. Therefore the actual size of the electorate in the enlarged constituency immediately after reform was nearer 220 than 301. This equals 4.7% of the population, and approximately one in four of the male population over the age of 21. This number of electors is ironically nearly 20% less than the 273 burgage houses that constituted the pre-reform franchise.

¹ *Returns Relating to Parliamentary Representation*, H.C. 105 (1831), xvi, p. 399.

² There is evidence to suggest that the unreformed Municipal Corporation was favourably disposed towards the Dundas family. E.g., in May 1812 the Corporation inexplicably annulled a sale of part of the town outmoor for 2,310 gns. and then immediately accepted an offer from Lord Dundas for £2,250; N.R.C.R.O., DC/RM, Richmond Corporation Coucher Books.

³ *Returns Relative to the 120 Smallest Boroughs at present returning M.P.s*, H.C. 38 (1831–32), xxxvi, pp. 77–8.

⁴ *Returns Relating to Parliamentary Representation*, H.C. 105 (1831), xvi, pp. 229–33.

⁵ *Parliamentary Representation: Returns of Boundaries Commissioners*, H.C. 141 (1832), xi, pt. v, pp. 157–9.

⁶ *Ibid*, p. 159.

⁷ Gash, *op. cit.*, p. 86.

⁸ *Returns on Municipal Corporations Boundaries*, H.C. 238 (1837), xxviii, pt. iii.

Understandably, there was no immediate revolution in electoral practice or parliamentary representation. There was no question of deserting the Dundas family or the Whig allegiance. But the local middle class began to take an interest in how and by whom they were represented at Westminster. At least some of them were able to vote in a parliamentary election for the first time for over a century. The Liberals in Richmond thought of themselves as an influential, independent group, ready to choose parliamentary representatives outside the Dundas family. They favoured those who had supported parliamentary reform and who were supporters of civil and religious freedom. They developed the custom in the years after 1832 of meeting informally to discuss the choice of parliamentary candidates.¹ Nevertheless, the Dundas family was able to retain control of parliamentary representation in Richmond until it lost its parliamentary status in 1884. Immediately after reform all the M.P.s were members of the Dundas family: Lord Zetland's brother, Sir Robert Dundas, and the Earl's second son, John, in 1832 and three years later it was the turn of Lord Zetland's eldest son, Thomas, and nephew, A. Spiers. These two were returned again in 1837. Then in 1839 Thomas succeeded his father to the title, so Sir Robert was brought back to fill the vacant seat again.²

The new earl quickly and forcefully stamped out an abortive attempt to oppose this nepotism, for in March 1840 Henry Wood, a Richmond shopkeeper, complained that Lord Zetland had not only withdrawn his custom but had evicted him from his premises because of his 'presumption in having dared to propose a candidate in opposition to Sir Robert Dundas.'³

In 1841 Lord Zetland met with a more determined effort on the part of the Richmond Liberals to exert some influence. Both seats became vacant as Sir Robert and his fellow M.P., W. Fitzwilliam, did not seek re-election. Christopher Croft, a Richmond Councillor and prominent Liberal, wrote to Marmaduke Wyvill explaining that 'Mr. Dundas announces his intention of offering himself to the electors and it now remains for the Liberal party to select a gentleman of known liberal and free trade principles as his colleague in the ensuing parliament.' In other words, the Richmond Liberals conceived it as their right to select the candidate if there was no Dundas to fill the seat, and they decided that Wyvill had first claim on their confidence and support.

Wyvill declined the invitation but proposed his son Duke (Marmaduke Wyvill junior) who was then studying law in London and would find the experience in parliament advantageous, but when he learned that the Liberal party was 'not acting in concert with Lord Zetland' he immediately wrote to explain that he had no intention of interfering with the Earl's management of the Borough. He told Lord Zetland that 'I should certainly recommend my son, if he is appealed to, to decline any overture that may be made to him until I am made acquainted with your lordship's feelings.' He recognised where the real power lay and calculated that his son's success in politics would depend more on the favour of the Earl than the support of the Richmond electors.

Meanwhile, John Dundas had offered the seat to Mr. Ridley Colbourne, son of Lord Colbourne and a stout Liberal. Christopher Croft was determined not to have him. Lord Zetland conceded that he would have been prepared to persuade Colbourne to stand down in favour of Marmaduke Wyvill senior but 'under the existing circumstances . . . feels bound to support Colbourne.' He had initiated the approach to Colbourne in the first place and was obviously annoyed by the activities of the local liberals who were canvassing several other candidates besides Duke Wyvill. Two of them he dismissed because they had previously refused invitations to stand, whilst a third, Mr. Lawson, he considered unsuitable because, being a member of the New Corporation party, both Tory and Whig members of the old unreformed corporation would object to him and 'he would not be allowed to come in without a severe contest' – something Lord Zetland wished to avoid for both political and private reasons. He asked Marmaduke Wyvill senior to use his influence to persuade the Richmond electors to support Colbourne,

¹ N.R.C.R.O., ZFW/7/3, Wyvill political papers.

² Gash, *op. cit.*, pp. 213–4.

³ N.R.C.R.O., ZNK/X/8/1/18.

holding out a half promise for the younger Wyvill next time as an inducement and reward. Wyvill duly suggested to Croft that the Richmond Liberals should accede to Lord Zetland's wishes.

Croft thought that Wyvill's recommendation would carry 'great weight with the electors under the present circumstances' but he was not sure whether or not they would accept Colbourne. In any case he felt 'satisfied that his reception here will be such as to teach him that the representation of Richmond is not now to be made a matter of private arrangement between two or three persons without the knowledge and consent of the electors.' But a few days later the local Liberals acknowledged defeat. None of their proposed candidates would stand up against the Dundas interest. Therefore they would offer no opposition to Colbourne although several of them, including Croft himself, would abstain – unless a Tory candidate made an unexpected appearance, in which case they would vote for the Dundas candidates.¹

Lord Zetland remained at loggerheads with the Richmond Liberals for some years and in 1845 replied to a complaint from Christopher Croft that he did not sufficiently support them by stating that in recent years he and his family had enjoyed more support from the local Tories than from the Liberals.²

In 1847 John Dundas relinquished his seat because of certain family differences, presumably with his brother the Earl.³ Their differences were probably political, because even 12 years later they were corresponding about their conflicting political views. Lord Zetland disapproved of the new proposals for parliamentary reform, including the ballot, because it would result in government by the masses. 'It never can be intended that we are to be governed by the masses alone,' he complained, and wished to 'retain to Property its legitimate influence.' He was also reluctant to forgo the electoral influence which the open hustings afforded him still in Richmond. John, although certainly no radical, was more liberal and supported the ballot. However, they were both worried by the trend in the Liberal party towards egalitarianism.⁴

Meanwhile, John Dundas' resignation in 1847 allowed Lord Zetland to fulfill his half promise to the Wyvills and Marmaduke junior was offered the seat. For the next 18 years he remained M.P. for Richmond, supporting a Liberal programme of free trade, improved conditions for the labouring classes, education for all, Palmerstonian foreign policy and a moderate extension of the franchise. He supported the reform bill of 1859 although urged not to do so by some of the Richmond inhabitants who feared it would reduce their political representation. Both the local Whig Reform Association and Lord Zetland were faced with the paradox that any further parliamentary reform – which they advocated – would certainly lose them at least one seat and much influence in their own borough.⁵

During the early part of his political career Wyvill shared the Richmond representation with Henry Rich, and later with Sir Roundell Palmer, the Attorney General, who was awarded this safe seat by Lord Zetland for his service to the Liberal party.

In 1865 Wyvill was reminded where real political power lay in Richmond. On 8 May he received a letter from John Dundas requesting 'a little talk.' Dundas went on to explain that he was now 'without anything to do [and], the family differences being quite healed, there is no longer any objection to my resuming my occupation which the Representation of Richmond would afford me.' With a general election approaching, he and his brother had considered the situation and as they did not want to 'endanger the seat of so valuable a member of the present Government' as Sir Roundell Palmer, there was no alternative but to ask Wyvill to resign his seat. Wyvill replied the same day, acknowledging his indebtedness to Lord Zetland for all the kindness he had always received and agreeing that it was natural that John Dundas should again wish to be in

¹ N.R.C.R.O., ZFW/7/3.

² N.R.C.R.O., ZNK/X/8/1/107.

³ N.R.C.R.O., ZNK/X/7, Diary of J. C. Dundas 1847–56; ZFW/7/3.

⁴ N.R.C.R.O., ZNK/X/7.

⁵ N.R.C.R.O., ZFW/7/3.

the House of Commons. He meekly issued an address to the Richmond electors recommending them to support Palmer and 'your old friend and member Mr. Dundas.' Not all the electors were happy about the way Wyvill was dropped after 18 years but Mr. H. J. Turner suggested that 'of course it is thought quite right for Mr. Dundas to be sat for Richmond if he wishes to go into Parliament again.' However, Turner recommended Wyvill to hold himself ready to represent Richmond once more as it was likely that one of the Richmond members would soon be elevated to the House of Lords. This was probably an inspired leak from Lord Zetland, for immediately after the election Palmer was made Lord Chancellor.¹

Wyvill had to wait a little longer to regain his seat, until the death of John Dundas in 1866. Even then, Lord Zetland first considered offering the vacancy to his nephew. There is some indication that he was only won over to Wyvill after the latter had modified his political views. By this time Lord Zetland was somewhat lukewarm in his advocacy of parliamentary reform – once again the major electoral question. Wyvill fell into line with Lord Zetland, proposing the enfranchisement of 'a fair number of the intelligent and industrious Artisans . . . in such numbers that they may have a fair share of Political Power – but not to such an extent as to swamp the present Electors . . . ' and he opposed the ballot not because he himself was against it but because he claimed it was repugnant to the vast majority of the people – and also probably because he knew Lord Zetland was opposed to it.

This by-election is notable in Richmond's parliamentary history because an opposition candidate came forward and forced a genuine contest. He was William Henry Roberts, the Recorder of Grantham and a radical Liberal who made Wyvill and Lord Zetland appear very conservative. Roberts advocated far more sweeping parliamentary reform, including the ballot and disenfranchisement of all insignificant constituencies; also the suppression of the Irish Church Establishment, the abolition of branding and flogging in the services and capital punishment altogether, mitigation of the game laws, free trade, popular education and a national poor rate. His electoral address attacked the Dundas domination of the Borough:—

'It may be a matter of surprise that, on the occasion of a Vacancy in the Representation of Richmond, any person should presume to obtrude himself upon the electoral preserve of the Earl of Zetland. The Candidates for your Suffrages have so long been Nominated by his Lordship, and the Votes of the Electors have so notoriously been at the disposal of the noble Landlord of the majority of the Constituency, that your Borough has acquired a name for political servility justifying the national demand for a thorough Parliamentary Reform . . . The Earl of Zetland should be content with his personal influence as a member of the Upper House of the legislature – and should respect the Right of his Tenantry to the free exercise of their Electoral Privilege . . . '

The Richmond Conservatives were informed that 'the Whig peer has nominated Mr. Marmaduke Wyvill, a gentleman . . . whose political character when in Parliament before was that of the most undistinguished and most obsequious Whig Partisans . . . ' They were now faced with a real election and were urged to support Mr. Roberts, despite his radical politics, because 'it would be a notable triumph to their cause if they could affect a breach in the domination now exercised by the Whig lord who finds members for Richmond.' However, Roberts was unable to overcome the Dundas interest in Richmond, even with Tory support.²

Wyvill himself demonstrated the degree of his dependence on Lord Zetland immediately after the election when he wrote to say that he had not made up his mind which way to vote on the reform bill. He wanted to know how his constituents wished him to vote and was anxious to obtain Lord Zetland's opinion. The Earl replied that he had a poor opinion of the bill because it would open the way to much more sweeping measures. He believed the country did not want further reform except disenfranchisement

¹ N.R.C.R.O., ZFW/7/3.

² *Ibid.*

of the corrupt boroughs. He did not say whether he included Richmond in this category. Nine months later, in early 1867, Wyvill declined an invitation to attend the Liberal National Reform Union because the programme of the reformers had advanced too far. Instead he proposed to support the new Tory Government's more moderate reform. Lord Zetland was glad to hear this and gently warned Wyvill against any junction with the Ultra Radicals. James Tomlin, the Richmond Liberal agent, advised Wyvill that they did not wish to be joined to either Northallerton or Thirsk, which would be bad for the Liberal interest. This fate was avoided for the time being but inevitably Richmond lost one of its seats in 1867.¹

This left one seat in the Dundas' gift for a further 17 years. Lord Zetland wanted this for his more illustrious nominee, Sir Roundell Palmer. Therefore Wyvill was required to stand down again. In July 1868 James Tomlin wrote to him explaining how satisfied Lord Zetland felt 'by the manner in which [Wyvill] had concurred in the views which had been formed as to the future representation' of Richmond. The Richmond Liberal party greatly regretted the necessity of severing the political connection between Wyvill and itself. Tomlin also asked Wyvill to publicly endorse Palmer's candidature against Roberts, who again opposed the Dundas electoral stranglehold of the Borough. Wyvill sent in an address supporting Palmer but it did not meet with full approval because of implied criticism of Gladstone. Wyvill made certain amendments but Tomlin decided to cut out all references to Gladstone. This annoyed Wyvill who felt that his opinions were misrepresented. However, out of regard for Lord Zetland and his friends in Richmond, he contented himself with making his objections in private. So, pliant to the last, Wyvill faded out of Richmond politics. He was subsequently offered a Liberal seat in York but declined and eventually became a Tory.²

Richmond's one seat remained in the Dundas family's control until the constituency was abolished in 1884. For all the semblance of reform in 1832, the reality of the borough's parliamentary representation was that it continued firmly in the hands of the Dundas family until the end.

¹ N.R.C.R.O., ZFW/7/3.

² *Ibid.*

THE YORKSHIRE ARCHAEOLOGICAL REGISTER: 1971

COMPILED AND EDITED BY STEPHEN MOORHOUSE

MESOLITHIC

OXENHOPE W.R. (SE 463226) During the backfilling of trenches in 1970 from the excavations at the Mesolithic site at *Nab Water*, site 3, carried out by the Bradford Antiquarian Society in the 1930's, a quantity of flint waste, including cores, core trimming flakes, blades, chippings and microliths were recovered from the spoil heaps by J. A. Gilks. Site 3 is now considered to be a northwesterly extension of Site 1; the two covering an area of some 30 yds. square. Finds now in the Tolson Memorial Museum.

RIPPONDEN, RISHWORTH MOOR W.R. (SE 048187) Mesolithic flints, including flakes, chippings and a microlith were located by J. A. Gilks after the removal of peat and heather by members of the Ringston Gliding Club. Finds now in the Tolson Memorial Museum.

RISHWORTH, BILBERRY HILL W.R. (SE 039159) During the course of fieldwork on the southern side of *Bilberry Hill*, J. A. Gilks and G. Chambers, for the West Riding Archaeological Research Committee, located a Mesolithic occupation/workshop site. Scattered on erosion patches and along the sides and bottoms of water eroded channels were flakes, core trimming flakes, chippings and microliths of backed and shouldered types. Retained by the finders.

NEOLITHIC

BARNSLEY W.R. (SE 355075) Sheffield City Museums report the finding of a polished stone axe at Monk Bretton. Petrological analysis shows it to be of volcanic ash of unknown source.

DENBY, CASTLE HILL W.R. (SE 205069) During the winter and spring months of 1970-71, Mr. B. Spence and pupils of Birds Edge Junior School collected from the surface of a ploughed field within the confines of the small Iron Age farmstead at *Castle Hill*, quantities of flint waste, scrapers, knives, a leaf-shaped arrowhead and the butt portion and cutting edge of two polished axes.

Surface examination of this site by J. A. Gilks for the Tolson Memorial Museum and the West Riding Archaeological Research Committee, showed that the southern section of the rampart had been removed through deep ploughing, and that portions of the underlying rock (Penistone Flags) had been brought to the surface. The rubble spread covered an area of some 14 m. square. Amongst the rubble were several waste flakes, scrapers, a knife and part of a leaf-shaped arrowhead. The finds are now in the Tolson Memorial Museum.

WALTON W.R. (SE 455474) The Yorkshire Museum report the finding of a Neolithic stone axe, length 16 cm. This was retained by the farmer, Mr. Macdonald.

BRONZE AGE

BURTON FLEMING E.R. See Iron Age section.

CASTLETON N.R. (NZ 682075) Fragments of Bronze Age pottery were picked up from an eroded patch on the southwestern edge of a small barrow by Mr. B. G. Plint. A number of small crumbs and three sherds were examined by T. G. Manby. One was a rim of a medium sized collared urn in brown fabric with crushed stone grit. Horizontal cord line impressions on the collar and the rim bevel. Finds deposited at the Ryedale Museum, Hutton le Hole.

CRIGGLESTONE W.R. (SE 325180) T. G. Manby reports that a polished stone battle axe of the Early Bronze Age, Wilsford Group II B type was found during gravel extraction at the *Denby Dale Road* gravel pit. Length 10.6 cms., dark green stone, well polished with battering on the face around the perforation. Two sherds of Romano-British pottery were also found: a plain sherd of grey ware and the neck of a red-ware flagon.

KILHAM E.R. (TA 055673) Excavation of a Bronze Age Ring Ditch by T. G. Manby and the Prehistory Research Section of the Yorkshire Archaeological Society disclosed a chalk-cut ditch 12 m. internal diameter, 1 m. wide and 0.6 m. deep. In the enclosed area two pits containing Bronze-Age pottery were completely excavated. A hearth, with burnt stones, sherds and flints was resting on top of

the lower ditch filling. Bronze Age pottery and pieces of cremated bone in the upper ditch filling may represent a plough-scattered burial.

MIRFIELD W.R. (SE 212204) J. A. Gilks reports that a haft-flanged axe, Pickering phase c. 1400–1200 B.C., was found in nineteenth-century made ground between the Church and the Motte in December 1970. A thin film of (?)tar covers the pale yellow bronze, filling corrosion pits and obscuring a patchy dark green patina. Retained by the finder.

SHERBURN IN ELMET: SOUTH MILFORD W.R. (SE 525326) The Yorkshire Museum report that an early Bronze Age axe hammer was found at Milford Hagg Farm, South Milford.

IRON AGE

(Some finds, possibly but not certainly of Iron Age date, i.e. querns, may be found under the Miscellaneous section at the end of the Register.)

BURTON FLEMING E.R. (TA 096695) A fourth area, Burton Fleming VI, of this La Tène cemetery was examined by Dr. I. M. Stead for the Department of the Environment. Thirteen burials each at the centre of a plough-flattened barrow were located, together with traces of four other barrows without central burials, one secondary burial towards the edge of a barrow, another disturbing a central grave, and eight burials in the ditches of barrows. Grave-goods included five brooches, two pots and a sword, while one skeleton had a spearhead lodged in its back. Among the La Tène barrows were the remains of a Late Bronze Age circular hut.

HOLME ON SPALDING MOOR, HASHOLME HALL E.R. (SE 822327) Two seasons of excavation on this site by the East Riding Archaeological Society under the direction of J. D. Hicks and J. A. Wilson have defined two periods of occupation. An Iron Age ditch system probably associated with domestic occupation has been partly examined. The ditches are cut into sand and lower levels of fill and produce quantities of pottery not unlike Wheeler's 'Brigantian Ware'. This system is dated c. A.D. 70.

The site has produced three Romano-British kilns to date though others are likely to be nearby. All are made entirely of clay and such internal supports as exist are of the same material. One kiln is in very good condition and it is hoped to preserve it in the Hull Museum. It has two lines of oven-roof supports and an inner flange slightly below the level of the roof supports. The flange goes round most of the inner circumference of the kiln.

The pottery examined to date consists of most of the range of products found in 1930 at nearby Throlam Farm. However, Hasholme pottery has a wider range of decorative motifs including rouletting, and a number of new types of vessel including a completely wheel-turned pot with a Dales-ware rim in a very hard, rough fabric. The kilns are provisionally dated to A.D. 200–350.

WELTON E.R. (SE 974279) Excavations under the direction of Rodney Mackey for the East Riding Archaeological Society and the Department of the Environment stripped topsoil from 4½ acres, about one fifth of the known site, and planned features in advance of quarrying. A sub-rectangular enclosure 30 m. x 25 m. of Iron Age date lay alongside a ditched road. In a later phase two rectangular fields overlapped the roadside ditch. At their junction was a substantial 5-posted structure, 3.8 m. square. Four inhumation burials were found, one accompanied by a pot.

The Iron Age enclosure was replaced on the northwest by a corridor villa on the same alignment, in a ditched enclosure 60 m. square. Only three rooms and part of the corridor have so far been uncovered.

A complex of buildings and other enclosures surrounded the villa compound on three sides, covering some 20 acres. In 1971 the southern part of this complex was investigated and within this were numerous agricultural and industrial features, including two aisled barns (15 m. x 7.5 m. and 20 m. x 10 m.) and a small *grübenhaus*. There was substantial evidence to suggest a possible post-villa phase of occupation.

WHARRAM PERCY E.R. See Medieval section.

ROMANO-BRITISH

ALLERTHORPE E.R. (SE 762475) Miss S. Jone conducting a pollen analysis at *Allerthorpe Common* found two joining fragments of a samian dish, form 18/31, at a depth of about 38 cm. underneath the peat.

BARNBURGH W.R. (SE 484034) M. J. Dolby reports that a Billon Antoninianus of Gallienus (A.D. 258–9 Lugdunum mint) was found while excavating a builder's trench in *Barnburgh Lane*. *OBV*: Radiate cuirassed bust right GALLIENVS PF AVG. *REV*: Trophy between captives GERMANICVS MAX V. In possession of finder.

BRACEWELL W.R. (SD 847473) See under Miscellaneous.

BROMPTON ON SWALE N.R. (SE 225995) An area of 170 sq. m. was examined by Miss S. Breckon to determine the line of *Dere Street* northwards from its crossing of the River Swale. The eastern edge of this road, together with a probable road added later and going in an easterly direction were uncovered. Coins and pottery suggest a third-fourth century date for the easterly addition, while pottery in the foundation of *Dere Street* suggests a second-century period of reconstruction.

BROUGH E.R. (SE 938267) J. Bartlett reports the finding during 1970 of an intaglio of red jasper from a signet ring on the surface of *Bozzes Field*. The design is of a nude male figure holding a patera in his left hand and a cloak in the other. Now in Hull Museum acc. no. H.M. 63.70/1.

CAMPSALL W.R. (SE 5414) M. J. Dolby reports the chance find in the garden of 2 *Glebe Road* during June 1970 of an AE of Constantine I (A.D. 321 Lugdunum mint) *OBV*: Laureate, cuirassed bust rt. CONSTANTINVS AVG. *REV*: Altar with VOTIS XX in 3 lines. BEATA TRANQVILLITAS C R PLG. In possession of finder.

CONISBROUGH W.R. (SK 50809836) Sheffield City Museums report the finding of 40 Nummia of Justinian I (527–565) in a garden.

— (SK 514989) M. J. Dolby reports the chance find of an AE dupondius of Hadrian from the grounds of *Conisbrough Castle* during the early 1940's. Too worn for exact identification; in possession of informant.

CRIGGLESTONE W.R. (SE 325180) See Bronze Age section.

DONCASTER W.R. (SE 577024) M. J. Dolby reports the chance find of an AE Centenionalis of Magnentius (A.D. 350–353) during demolition of Arthur Street, Hyde Park in March 1970; it was uncertain whether it came from within the structure of the house or from its foundations. *OBV*: Emperor's bust rt. A. behind head. DN MAGNENTIVS PF AVG. *REV*: Two victories holding wreath inscribed VOT V MVLX. VICTORIAE D.D. N.N. AVG ET CAES. Mintmark illegible. In possession of finder.

— (SE 574036) A second season on the site of the Roman fort and early medieval castle was carried out by P. C. Buckland for Doncaster Museum and the Department of the Environment in advance of road improvements. Early Flavian timber structures, associated with a cobbled road, were located extending eastwards beneath the later rampart. The carbonised remains of a flat rectangular shield of plywood faced with leather with a hemispherical iron boss and vertical handgrip, were found beneath this rampart. Three phases of regular timber buildings were defined in the eastern half of the fort, the latest being of the early fourth century. Later structures were irregular, although a military presence is implied by a plumbata and Zoomorphic belt buckle. The south and east gates of the 1.62 hectare fort were located, although only part of the latter has so far been excavated; there was no trace of any internal towers in stone. A section through the eastern defences showed the wall, over 2 m. thick, to have been completely robbed at this point in the fifteenth century and a large building with stone cellars, resting on the partially robbed fort wall, constructed. This structure was itself succeeded after less than two hundred years by a large keyhole-shaped oven.

The ditch around the now levelled Norman castle motte was located, east of the Parish Church, and found to have been backfilled in the thirteenth century prior to the construction of an aisled building on rough stone footings, probably the Moot Hall known from documentary evidence.

Another season of work is planned for Easter 1972, before the construction of a large department store over the south gate and part of the vicus.

ECCLESFIELD W.R. (SK 33559420) Sheffield City Museums report the finding of a commemorative Denarius of Antoninus Pius (161–180) in a garden at Grenoside.

EDLINGTON W.R. (SK 549987) Sheffield City Museum report the finding of an Antoninianus of Herennius Etruscus (250–251) in a rock crevice at Edlington Wood.

GREEN HAMMERTON W.R. (SE 48055703) The Yorkshire Museum report that a grit-stone coffin aligned north-south containing a male skeleton about 1.7 m. tall and a late second-early third century jar were found while digging field drains. The lid of the coffin, which is now in the Yorkshire Museum, is gabled with cut-outs and measures 2.19 m. long. The foundation trench was found to extend north of the coffin by about 46 cm. showing that the coffin had been pushed into the ground from this position. 'U-shaped' ditches filled with occupation debris and charcoal were seen in the section of the drains and third-fourth century pottery was recovered from the area.

HALIFAX, OGDEN W.R. (SE 064313) A section was cut across the main Mancunium-Olicana road at *Ogden* by J. Hooper and students of the Percival Whitley College Archaeological Society during June and July. The surface of the road was located beneath 50 cm. of dark brown-black peaty soil, and was composed of unshaped blocks of Millstone Grit. The width of the road is 6 m. and is edged on the east and west sides by flat-bottomed, rock-cut drainage ditches.

HOLME ON SPALDING MOOR, HASHOLME HALL E.R. See Iron Age section.

KIRKBY UNDERDALE E.R. (SE 798590) The Yorkshire Museum report the finding of fourth-century Roman pottery, a quern and a sherd of medieval pottery.

PIERCEBRIDGE (NZ 214154) Mechanical stripping, observed by P. R. Scott, for the Department of Archaeology, University of Durham, in advance of gravel quarrying during the spring of 1971, at *Holme House (West)* immediately east of the B6275 road (Dere Street), from Piercebridge to Scotch Corner, and several hundred metres west of the villa uncovered in 1969–70, revealed the mutilated foundations of a Romano-British settlement, together with quantities of pottery and other artifacts. Excavation of three areas in the field was undertaken. In the northeast, where a short length of ashlar wall had been observed during the earliest investigation of the site, the cobbled foundations of three buildings, a street and a courtyard were discovered, together with much occupational debris. In the northwest, where a quarry had already been begun, a small road with ditches on either side was discovered, overlying a rubbish pit which yielded a quantity of samian pottery, including one fragment with a potter's mark. To the south, a well-made road c. 3.5 metres wide with kerbs and ditches on both sides was uncovered leading in the direction of the street in the northeast area; some structural remains and much evidence of occupation were discovered on the west side of this road.

From evidence recovered it is clear that civil settlement lay south of the Tees and immediately east of Dere Street. Dating remains tenuous; since any stratigraphy on the site had already been obliterated by stripping to a depth of 60–100 cms, there was little opportunity for recovering sealed or properly stratified dating evidence for any of the structures. A thorough examination of the pottery may clarify this situation. Coin evidence, however, indicates a prolonged occupation of the site from the middle of the second century to the end of the fourth. The relationship between this settlement and the military occupation of Piercebridge, and the villa, remains problematical. The central part of the site will be available for another season and would merit further examination.

RICCALL E.R. (SE 629374) The Yorkshire Museum report that a stone wall foundation, with a door pivot, running north–south 40–44 cm. wide, a Roman roofing tile and pottery of the second–third century was found by the farmer, Mr. G. Firth, while ploughing.

RUDESTON E.R. (TA 088667) Trial excavation by Dr. I. M. Stead for the Department of the Environment at *Rudston VII* in the field on the north side of Kilham Lane located a Roman road and a series of ditches running parallel with the modern road. On the grass verge a Roman house was found, orientated not with the road but with the Roman buildings to the south. Two mosaic pavements were partly excavated. One was figured and half of it had been destroyed, possibly in the nineteenth century, but the other half was intact with a figure in a quadriga at the centre.

SHEFFIELD W.R. (SK 315795) Sheffield City Museums report the finding of an As of Claudius (41–54) near Totley Brook.

—— — (SK 352897) Sheffield City Museums report the finding of an As of Commodus (177–192) in a garden at Shirecliffe.

—— — (SK 356890) Sheffield City Museums report the finding of a Tetradrachm of Maximianus (286–305, Alexandria mint) in a garden at Woodside.

SKELBROOKE W.R. (SE 5212) M. J. Dolby reports the finding of an AE Sestertius of Domitian (A.D. 85 Rome mint) during the reconstruction of the A1, c. 2.5 km. north of *Skellow Five Lane Ends* in 1962. *OBV.* IMP CAES DOMIT AVG GERM COS XI CENS PER PP. *REV.* Domitian standing on right. Captive on left. S.C. In possession of finder.

SOUTH CAVE E.R. (SE 92943170) J. Bartlett reports that a fragment from a glass bracelet of plain blue glass was found on this Romano-British smelting site. Now in Hull Museum acc. no. H.M. 89.70.

SWINTON W.R. (SK 444991) M. J. Dolby reports the chance find of an AR Denarius of Nero (A.D. 63–68 Rome mint) from the garden of *14 Romwood Avenue* in 1964. *OBV.* NERO CAESAR AVGVSTVS. *REV.* AVGVSTVS (AVGVSTA). In possession of finder.

TODWICK W.R. (SK 494844) Sheffield City Museums report the finding of 2 Antoniniani of Gallienus (253–268, Rome mint) found in a field with several others c. 1962.

WELTON E.R. See Iron Age section.

WHARRAM PERCY E.R. See Medieval section.

YORK (SE 599523) For the city wall section between the *Multangular Tower* and the *Anglian Tower*, see the Anglo-Saxon section.

—, THE BORTHWICK INSTITUTE (SE 60785208) The York Excavation Group has continued work on this site close to the City Walls. The 1970 excavation produced stratified levels of ash, charcoal, pottery and tiles, suggesting debris from a kiln: this included tiles of Leg. IX. The area was heavily disturbed by insertions from a medieval cemetery.

The pottery is in three fabrics; a pale red with varying degrees of sand, a finer usually deeper coloured red with a few occasional flecks of white calcite. These two fabrics are used for large storage jars and carinated bowls with both flat and reeded rims. There are also one or two unusual ova; bowls with lug handles just below the rim. The third, about 10% of the total assemblage, is a very fine fabric similar to that found at the depot of the Leg. XX at Holt, being pale brown and well-polished and occurring in vessels of several forms including samian D.37 shape and small beakers with thin walls. Other associated sherds, though few in proportion, included colour-coated rough-cast beakers and samian ware.

—, PARLIAMENT STREET (SE 603519) Rescue work undertaken by J. Hinchcliffe on behalf of the Department of the Environment and the Yorkshire Museum during the construction of the *Midland Bank, Parliament Street*, produced an interesting group of material including a Roman altar inscribed to the *geni loci*, three medieval wooden bowls, a fifteenth-century leather scabbard and a spur.

Two parallel Roman walls, 10.5 m. apart and both 46 cm. wide ran east-west on the same alignment as the Fortress; floor flagging was observed. This structure is likely to be the same as that reported in *Eboracum* p. 64, no. 41.

A Dark Age burnt wooden building was found with signs of bone and antler working on the floor, together with Middle Saxon pottery of Ipswich Ware type.

—, RAILWAY STREET (SE 605524) Two sections excavated by J. Hinchcliffe on behalf of the Department of the Environment and the Yorkshire Museum revealed the main Roman north-south road through the *Colonia*. The road was 9.5 m. wide and had been resurfaced six times. Three building phases were related to this road and in the third of these, in the mid-third century, the building encroached upon the road. The road appears to have gone out of use in the fourth century or later, when several small pits and a gully, containing fourth century pottery, coins and animal bones were cut into its surface.

ANGLO-SAXON

FANGFOSS E.R. (SE 7653) The Yorkshire Museum report the donation of an Anglo-Saxon disc from a pin (c. A.D. 850) found at *Fangfoss* in 1940.

HORNSEA E.R. (TA 20644870) J. Bartlett reports the finding on the cliffs during 1970 of part of an Anglo-Saxon bone comb with two rows of teeth. The plates are decorated with lattice work incisions. Now in Hull Museum acc. no. H.M.9.71.

WELTON E.R. See Iron Age section.

YORK (SE 599523) A sector of the defences on the western side of the city between the *Multangular Tower* and the *Anglian Tower* discovered by the late J. Radley in 1969, was excavated in detail by B. K. Davison for the Department of the Environment. Although only a little remained of the tenth, eleventh and twelfth century ramparts at this point, it was possible to show a sequence of eight successive defensive works spanning the fourth-thirteenth centuries. This is the first time that this has been done in York.

The sub-Roman and early Anglian inhabitants of York retained the Roman Wall, rebuilding the parapet in timber and heightening the rampart behind. At some date after the building of the *Anglian Tower* (possibly, but not certainly in the seventh century) the Roman wall with its outer refurbishments was encased in a rampart of grey clay and a new timber breastwork was erected on its crest. This work may have been connected with the Viking attack on York. The subsequent remodellings of the defences followed the same pattern of rampart and palisade until the City Wall was built in the mid-thirteenth century.

—, PARLIAMENT STREET See Roman section.

MEDIEVAL

ACKWORTH W.R. (SE 444145) A large area of slag has been located by C. E. Camplin c. 150 m. south of *Hemsworth Lanes*. There was evidence of a bowl furnace with associated iron and charcoal and over 200 sherds of pottery was found within a limited area; this ranged in date from the twelfth to the fourteenth century and included East Pennine Gritty, Pimply and Humber Wares; 26 fragments of ceramic tile were also found. Slag was found at 10 other spots over the surrounding area.

ADWICK-LE-STREET W.R. (SE 555068) M. J. Dolby reports the chance find on the surface of a ploughed field immediately south of *Langthwaite Dike* and *Radcliffe's Moat* in April 1970 of an AR Penny of Edward III (Durham mint). *OBV.* ED (WR) ANGL DNS HYB. *REV.* CIVITAS DVREME. In the possession of the finder.

AMPLEFORTH N.R. (SE 578786) The Yorkshire Museum report that fifteenth-century and later sherds have been found on the field surface.

DALTON-ON-TEES N.R. (NZ 296078) Excavations by A. Pallister and L. Still were carried out on one of two moated sites forming part of the medieval earthwork complex associated with the shrunken village of Dalton-on-Tees. The moat concerned was that to the west of the village, enclosing a central area about 14 m. square. The platform was roughly surfaced in places but bore no trace of any building; the ditch was revetted on its outer edge only, suggesting use as a fishpond. Pottery from the platform build-up is broadly datable to c. 1300, while the small quantity on its surface was mostly late medieval, including Cistercian ware.

DONCASTER W.R. See Romano-British section.

ECCLESFIELD W.R. (SK 34609399) Sheffield City Museum report that the base socket for a medieval cross has been found in situ at the Wheel Lane road junction.

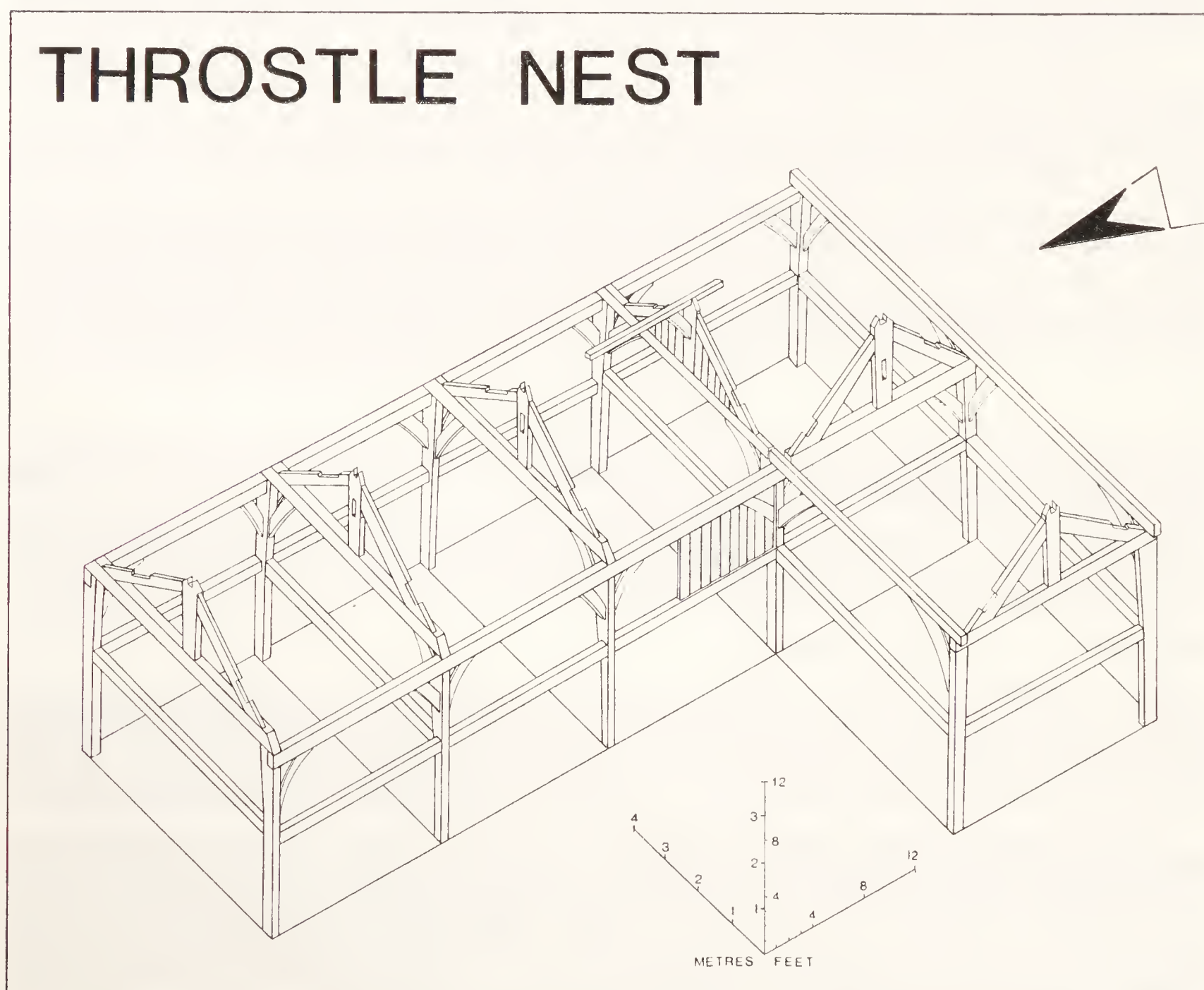


FIG. 1. Isometric reconstruction of fifteenth-century house, Throstle Nest, Halifax.

HALIFAX W.R. (SE 047243) *Throstle Nest*, a timber-framed L-shaped house of the mid-fifteenth century, was surveyed by J. A. Gilks for the West Riding Archaeological Research Committee and the Tolson Memorial Museum in the Spring of 1971 (Fig. 1).

The house comprises the remains of an open hall of two bays with a (?) service bay at the northern end with a chamber over. The south wing, of two bays, is panelled between a pair of posts on the first floor, whilst the walls of the hall and south wing show evidence of vertical studding with clay and straw filling between. The house was encased in stone about 1650, and a new suite of rooms added on the west side about 1920.

—, BRADSHAW W.R. (SE 080303) J. A. Gilks reports that a fragment of a grave slab was discovered during the demolition of a garden wall, of probably (?) eleventh century date. It has a diagonally-tooled border along its left-hand edge and base, and a human face with large wedge-shaped nose in relief set diagonally across the slab face with an incised oak leaf above. Retained by the finder.

—, TRIANGLE W.R. (SE 049229) J. A. Gilks, for the Tolson Memorial Museum, Huddersfield, investigated part of an early fifteenth-century timber-framed aisled hall at 8 *Lower Brockwell Hall Lane*, revealed during the partial demolition of *Brockwell Hall Cottage*. The surviving framing consisted of two pairs of posts with enlarged heads carrying rectangular-sectioned tie beams. The gable was hipped and the roof of coupled-rafter type; the purlins were supported on queen posts which were mortised into the tie beam. Sufficient remained to indicate that the surviving bay (4.4 m. by 4.75 m.) had been of two storeys, presumably with a service bay on the ground floor and with a residential chamber over.

—, SHIBDEN VALLEY W.R. (SE 099267) A survey of *Lower High Sunderland*, a single-period end-hall house of the mid-fifteenth century was carried out by J. A. Gilks for the West Riding Archaeological Research Committee. Two bays of this four-bay house survive. The west wall is of vertical studding between the wall plate/middle rail; below this the coursed rubble sill wall has been replaced with brickwork. On the east side no studding remains and the wall, of coursed squared rubble, is of eighteenth century date. The roof truss is of king post type, with a square-set ridge piece secured to the king post by curved ridge braces; only one complete truss survives at the southern end of the second bay.

—, GOAL LANE W.R. (SE 095254) Excavation of three further house plots, to the west of Houses I–V excavated in 1970, was carried out by J. A. Gilks for the West Riding Archaeological Research Group.

House VI, aligned east–west and parallel to the medieval street, had wall foundations of sandstone rubble and exceeded 5 m. by 2.5 m. internally. The house was divided into two rooms; rooms VI/i and VI/ii. Room VI/ii, 2.5 m. wide, had a floor of crushed sandstone and gravel; set diagonally (northwest to southeast) across the room was an oven 2.4 m. long by 1.1 m. wide and sunk 0.45 m. into the natural sub-soil. Room VI/i, to the east, also had a floor of gravel; below this were post-holes of the Period II timber-built house. Scattered on the floors were fragments of late thirteenth to early fourteenth-century quartz-tempered pottery.

House VII, aligned east–west, was 2.6 m. wide and exceeded 3 m. in length. The walls were of sandstone rubble and the floor of thin pieces of sandstone set on edge in dark brown soil. In Period III, Phase iv, a small oven constructed of sandstone rubble was inserted into the southeast corner of the house.

House VIII. In Period III, Phase i, House VIII, aligned north–south, was 3 m. wide and exceeded 7 m. in length. The wall foundations were of sandstone rubble and the floor of crushed sandstone and gravel. At the southern end was a small rectangular room which, in Phase ii, was divided into two rooms (Rooms VIII/ii and VIII/iii) by inserting a narrow wall with a sandstone rubble foundation. In Phase iii, the cross wall and the dividing wall between the rooms were demolished and a stone stair base inserted to the north. Phase iv is represented by the addition of a small room (Room VIII/iv) to the west of the house with a floor of sandstone rubble and clay. The north and part of the west walls appear to have been destroyed in the early fifteenth century (over half a century after the house was abandoned) by the digging of a pit 2.8 m. in length, exceeding 1.5 m. in width by 1.6 m. in depth. In a layer of grey silt at the bottom of the pit were numerous horn cases, horse teeth, animal bones and early fifteenth-century coarse and fine pottery.

HAROME N.R. (SE 644820) During the dismantling of the ruined early-seventeenth-century *Harome Manor House* for re-erection at Ryedale Museum, Hutton-le-Hole, R. H. Hayes carried out limited excavations under the flagged floor and along the line of the east wall and in the area of the solar. A fire-pit was found dug into the natural gravel 4.5 m. from the solar doorway and 6 m. from the north gable on the east side of the Hall. It contained layers of ash, red roofing tiles, limestone slates with nail holes, and pottery of thirteenth to fifteenth-century date, including a fragment of a glazed jug of c. 1275–1325. Under flooring slabs 1.5 m. by 0.7 m. and 0.15 m. thick were post-holes and a flat hearth, producing pottery ranging from the twelfth to the sixteenth century.

A limited part of the floor of the solar was cleared of rubble, and an excavation 4 m. by 3 m. was carried out. The floor had been of wood, and beneath were 2 rows of post-holes c.0.14 m. in diameter and 0.36–0.51 m. deep, and parallel to the south gable wall. A deposit of roofing slabs and tiles covered pottery mostly of fourteenth to fifteenth-century date.

The rebuilt solar incorporated remains of wall-paintings on the panels between the studding, dated by Dr. E. A. Gee to 1610–20; this attribution was supported by evidence from the east wall where Norman dressed stones had been re-used, sealing a sherd of seventeenth-century stoneware. The crucks of the Hall also appear to belong to this seventeenth-century reconstruction, and it seems that it was at this time that the stone and tile roof was replaced by thatch.

A pamphlet on Harome Manor will be published by Ryedale Museum in 1972, and an article on cruck building in Ryedale and Cleveland is forthcoming in *Trans. Scarborough & District Arch. Soc.*

HULL E.R. (TA 102287) Two sites were examined during 1971 by J. Bartlett for Hull Museums and the East Riding Archaeological Society.

131–134 High Street: Excavation of burgage tenement. The plans of three successive buildings were recovered, all of which belonged to the period 1250–1350.

Phase I: A timber-framed building with hall or kitchen (7 m. x 6 m.), pebble floors and large (2.2 m. x 1.8 m.) open tile-on-edge hearth. Date A.D. 1250–1300.

Phase II: Rebuilding of timber house with hall or kitchen (7 m. x 6 m.), pebble floors and smaller open brick hearth (1.1 m. x 1.1 m.). Probably a wooden tower at southeast corner. Date A.D. 1250–1300 (coins and pottery).

Phase III: House with aisled hall and small chamber (8.8 m. x 6.7 m.), the front and back walls of which were of well-coursed masonry, the end walls timber-framed on stone foundations. Date 1300–1350, on the evidence of abundant pottery from the floor levels.

178 High Street. Excavation of a burgage tenement. Six successive building phases were identified between A.D. 1300 and A.D. 1790 dated on the evidence of coins and pottery associated with clay floors and hearths.

An interim report on both these sites can be found in *Hull Museum Bulletin* no. 6 (Dec. 1971).

KILTON, KILTON CASTLE N.R. (NZ 703176) Excavations were continued by F. A. Aberg for the Department of Adult Education, Leeds University; the eastern end of the inner courtyard was opened up. The circular structure found in the southeast corner in 1970 proved to be an oval oven, 3.7 m. x 3 m., inserted into a thirteenth-century tower. The tower is square with internal dimensions of 4.3 m. x 4.3 m. and seems to have outerworks, which are still being investigated. In the northeast tower a trench intended to reveal its foundations uncovered two cellars separated by a cross wall in an unsuspected basement. Further excavation in the room between the two towers showed extensive rebuildings of the bakehouse constructed in the fifteenth century. The ovens were first set in the north end close to the stone trough, but these were later filled in, a partition inserted, and the large oven placed in the southeast tower with a smaller oven adjacent to it. The present curtain wall across the east end is a nineteenth-century rebuild on the line of the original wall.

KIRKBY UNDERDALE E.R. See Roman section.

LASTINGHAM N.R. (SE 729904) See under Post-Medieval.

PONTEFRACT, PONTEFRACT PRIORY W.R. (SE 463226) Excavations continued for the sixteenth season under the direction of C. V. Bellamy with further study of an area some 16 m. north of the nave. This had revealed evidence of various hearths attributable to Dissolution bonfires, probably to melt scrap metals. At greater depth more substantial hearths or furnaces demonstrated that this locality was used for metal working during the later monastic occupation. Some fragments of a large mould suggest bell-founding but the scatter extends beyond the current trenches. Excavations were taken down to 6 m. to reach the natural surface.

In an adjacent area approximately a quarter of a large lime kiln was uncovered at a similar depth.

SANDAL MAGNA, SANDAL CASTLE W.R. (SE 338182) During the eighth season of excavation on Sandal Castle, directed for the Sandal Castle Excavation Committee by Kevin Stubbs and Lawrence Butler, work was concentrated on 4 areas in the medieval castle. Within the stone keep on top of the Norman motte, the interior of a probably fourteenth-century cellar was examined and the exterior of the late fifteenth-century Well Tower partly cleared of debris. The exact line of the west curtain wall was traced and its construction phases examined. The ditch around the inner barbican was found to contain a complicated series of post-holes of late fifteenth or early sixteenth-century date. The main drawbridge between the bailey and the barbican was partly cleared. Among a number of interesting finds were a gargoyle in the form of a wyvern (a King's Beast?) and a Scottish 20 pence piece of 1638 from the Civil War occupation level.

SHEFFIELD W.R. (SK 375865) Sheffield Manor: see under Post-Medieval.

SHERIFF HUTTON, SHERIFF HUTTON CASTLE N.R. (SE 654663) Work was carried out on the clearing of debris and vegetation from the structural parts and the interior of the castle by the Teesside and North Riding Association of Youth Clubs in conjunction with and under the direction of A. Zealand and the Teesside Museums and Art Gallery Service. It is hoped to carry out further clearance work during Spring 1972.

SKELTON IN CLEVELAND N.R. (NZ 652187) Continued excavation by B. C. Martin for the Skelton and Brotton W.E.A. have revealed the remains of dry stone walling running on a north–south line. A cobbled pavement with an average width of 1 m. runs along the west side of the wall. A covered drain was revealed running parallel to and 6.35 m. to the west of the wall. The final extent of the wall, pavement and drain have yet to be determined.

Pottery of the fourteenth and fifteenth centuries is found over the site, sometimes associated with animal bones and localised patches of wood ash.

UPLEATHAM N.R. (NZ 632195) A second season of excavation at the old *Church of St. Andrew's, Upleatham* was carried out by Mrs. S. J. Knight with the Skelton W.E.A. archaeology class in connection with the Extra Mural Dept., Leeds University. Work this season was concentrated on the south side of the existing building within a trench measuring 6.5 m. x 2.5 m. Disturbed ground produced pottery ranging in date from the thirteenth to the twentieth century; a child's grave slab, gable ended with 'D' shaped head and footstones, possibly of mid-eleventh-century date, was also found.

WHARRAM PERCY E.R. (SE 858646) J. G. Hurst continued excavation at Wharram Percy Deserted Medieval Village for the Deserted Medieval Village Research Group and the Department of the Environment.

The excavation of the early Saxon church was completed. It originally comprised a single cell 6.75 m. x 4.6 m. to which was added a chancel 3 m. x 2.5 m. built of sandstone ashlar walls 1.2–1.7 m. thick overhanging a 0.9–1.2 m. wide chalk foundation. Underneath the chancel were found post-holes and a hearth of an Iron Age hut.

A trench at the foot of the hillside, to the north of the church, produced evidence for a series of massive chalk walls with sandstone dressings and datable to the fourteenth and fifteenth centuries. As there are already two manor sites this could be a second site for the rectory.

To the northwest of the village a first-century Romano-British farmstead was found bounded by a ditch 4.7 m. wide and 1.9 m. deep. This was filled-in in Trajanic times and a series of stone buildings constructed. To the southwest of the village a V-shaped Iron Age boundary ditch, 1.9 m. wide and 1.2 m. deep, was found and traced for a length of 61 m.

YORK See Anglo-Saxon section.

YORK (SE 599523) For the city wall section between the *Multangular Tower* and the *Anglian Tower*, see the Anglo-Saxon section.

—, CHURCH STREET (SE 604519) The Yorkshire Museum report that fourteenth–fifteenth century pottery, a bronze tripod ewer, a stone loomweight and shears were found on the site of the *Golden Lion, Church Street*.

—, FULFORD (SE 615497) The Yorkshire Museum report the donation of a medieval lead weight (227 gm.) found at *21 Broadway Grove, Fulford*, about eight years ago.

—, PARLIAMENT STREET See Roman section.

POST-MEDIEVAL

EASINGTON N.R. (SE 752197) Work at *Boulby Alum Works* by S. K. Chapman during 1971 has mainly been confined to the clearance of the blacksmith's shop on the *New Works* site. This is nearly completed and has produced a large amount of iron scrap on the stone floor in front of one of the hearths. In this heap were iron brackets, various rods, nails and strapwork, also pieces of tramrail and fishplates which are of special interest. Pieces of scrap lead were also found.

A small room next to the smithy had a timber plank floor laid on sandstone blocks, with evidence of several wooden partitions against one wall, and across the entrance.

HAROME N.R. (SE 644820) See under Medieval.

HORBURY W.R. (SE 295185) K. Bartlett has examined the surviving parts of *Horbury Tithe Barn*, half of which was destroyed by fire in 1904. The remainder was made into two cottages, now *14 and 16 Tithe Barn Street*. The roof structure comprises common rafters and collars supported by oblique studs from the beam to a single purlin on each side of the roof. Curved braces from principal to wall plate suggest an early sixteenth-century date.

— — (SE 297182) T. G. Manby reports the existence of photographs taken by the Tolson Memorial Museum, Huddersfield, of *Nether Hall*, now the *Shepherds Arms*, when modernised in 1964. K. Bartlett considers that these, with others taken on earlier occasions, will allow a photographic reconstruction, if not an isometric drawing, to be made. The building was erected in 1578, and comprises a group of four timber-framed structures in an approximate cruciform layout.

HUTTON LE HOLE N.R. (SE 706883) F. A. Aberg and D. W. Crossley excavated the site of a sixteenth-century glass furnace on *Hutton Common* on behalf of the Society for Post-Medieval Archaeology and the Department of the Environment. Two furnaces were found. The main furnace, which had been rebuilt on two occasions, was a winged structure typical of immigrant glassmakers of the latter part of the sixteenth century. It had been used to make vessel glass, and had siege space for 2 crucibles. The products were similar in design to those from Rosedale furnace, c. 10 km. to the north, but the fabric showed a greater propensity to weather.

The second furnace, of which the barest fragment survived, was probably for annealing purposes.

LASTINGHAM N.R. (SE 729904) Trial Excavations were carried out by R. H. Hayes in 1970–1 at *Otterburn Garth*, a small field situated high on the east side of the centre of the village of Lastingham and marked 'Site of a Messuage' on the 1839 Tithe Map. Evidence of occupation from the thirteenth to the eighteenth century was recorded. The earliest material was pottery ranging from the thirteenth to the sixteenth century from between the stones of a bank bounding the south of the site; these included a Cistercian-ware face mask, and sherds of Stearsby and Potter House wares. In the eastern area there

was early walling, parts of a large millstone set as flooring, and a hearth of pitched cobbles; square stone-lined post-holes, perhaps of timber door-posts, and other post-holes set in a floor of well-trodden natural clay which yielded sherds of fifteenth to seventeenth-century pottery.

The latest material came from grass-covered banks standing to 0.7 m. or more in height in the western area of the site; these were possibly fragments of farm outbuildings and included walling of seventeenth to eighteenth-century date and a sealed layer containing pottery of the period, a blue glass-headed pin, and a coin of George III (?1789).

OSSETT W.R. (SE 296217) A survey of *Stewards' House, Low Laithes Golf Club* by K. Bartlett showed that the building was aisled on the south side. Joiners marks were similar to those found at *John Bunny's House* (see *Y.A.J.*, vol. 44), and showed that the remaining bays were the 5th, 6th and 7th of a longer complex which had spanned the yard of the earlier farm. The similarity of the joiners' marks suggests a mid-sixteenth-century date.

SHEFFIELD W.R. (SK 375865) The fourth season of excavations was conducted at Sheffield Manor by Miss Pauline Beswick for Sheffield City Museums, working in the Wolsey Tower and the adjacent hexagonal structure at the north end of the Long Gallery. A garderobe was uncovered in the northeast corner of the Tower, also the foundations of a pottery kiln, built into the hexagonal structure after the partial demolition of the Manor in 1706. The seven-flued kiln, 4.27 m. in external diameter, produced a brown mottled-glazed ware in shapes close to those of Staffordshire mottled wares of the early mid-eighteenth century.

STEARSBY N.R. (SE 608715) R. H. Hayes excavated a sixteenth-century pottery kiln on behalf of Ryedale Museum in September 1970. Ploughing had destroyed all but the oval base, 3.7 m. (north-south) by 2.5 m. with a possible earlier round base of stone slabs beneath. Several clay cylinders 10 cm. in diameter and 5-8 cm. long, splayed out at the ends, were found, and appear to have been kiln furniture. Burning on the natural shale showed the outline of the flue. Pottery, present in quantity, was mainly buff and grey in fabric, and much of it was glazed. Forms included jugs with strap handles and frilled rims, watering jugs with holed bases, cisterns with bung holes, bungs themselves in large quantities, 3-footed pipkins and a few handled bowls.

WORTLEY W.R. (SK 327981) Sheffield City Museums report the finding of slag from iron-working, associated with seventeenth-century pottery in a garden at Howbrook. Slag and pottery in Sheffield Museum.

MISCELLANEOUS

ALLERTHORPE E.R. For *pollen analysis* see under Roman section.

BRACEWELL W.R. (SD 847473) The earthwork on *Primrose Hill* was excavated by Alan King and the Chorley College of Education in June 1971. Situated 500 m. north of the Ribchester to Elslack Roman road it measures 10 metres square, the top of the platform being 1 metre above surrounding field level, and it looked the ideal site for a signal tower. No post-holes or masonry were found, nor any finds. There was no ditch around the earthwork but the boulder clay of the mound contained sandstone while the drift below was more calcareous, and so it seems man-made. It is well positioned to view country to the north and east, especially towards the earthwork at SD 876483, three km. away to the northeast.

GUISBOROUGH N.R. (NZ 644167) D. A. Spratt, R. E. Goddard and D. R. Brown report the discovery of a cup-marked stone in a round barrow immediately adjacent to, and to the east of, the O.S. triangulation point on *Airey Hill*; the barrow is 12.8 m. dia. and 1.6 m. above natural at its centre. A slab of local sandstone 0.76 m. width and 0.23 m. thick is embedded in the barrow, at 13.7 m. bearing south-southwest from the centre. The slab inclines toward the centre of the barrow at an angle of 30° to the vertical, and appears to be a kerbstone. On the upper surface of the stone are six weathered cups; a group of five comprising one 10 cm. diameter 2.5 cm. depth, and 8 cm. diameter 1.2 cm. depth and three 5 cm. diameter 0.6 cm. depth; the other cup is at a distance of 0.23 m. from this group and is 5 cm. diameter, 0.6 cm. depth.

MUKER N.R. (NY 894011) R. L. Jones, Department of Geography, The University of Sheffield, has carried out stratigraphic and pollen analysis of Late- and Post-glacial lacustrine deposits at *Rokin's Field, Keld*.

SWINTON W.R. (SK 446990) M. J. Dolby reports the chance find of the top stone from a bee-hive quern from the garden of 83 *Rockingham Road* during June 1970. Now in Doncaster Museum acc. no. 19.71.

BIBLIOGRAPHICAL AND ARCHIVAL NOTES; BOOK REVIEWS

YORKSHIRE PERIODICALS 1971

compiled by AUDREY N. GILROY

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ARCHIVE NOTES¹

By D. J. H. MICHELMORE

Manuscript maps made before 1700

The most notable recent accession to the society’s record repository is a map of the manor of Barugh, 1697, by Samuel Grover (MD 340, paper on linen, 4 ft. 3 ins. x 2 ft. 9 ins., scale 16 perches: 1 in.) which is of particular interest as it shows coal shafts and soughs in addition to hedges, woods, houses, roads and streams. It gives field names, and shows that at the time the map was made the manor had mostly been enclosed, although some sections of the open fields did survive.

The collections in the society’s custody contain a number of other maps made before 1700, of which the most important is perhaps a map of Hatfield Chase, 1630, by Josias Acerlebout (DD 47, paper, 1 ft. 5 ins. x 1 ft., scale 400 rods: 1 in.) which shows the channels by which the Chase was drained. The earliest dated map in the society’s collections² is one of Thrintoft (MD 59/23, parchment, partly coloured, 2 ft. 2 ins. x 2 ft. 1 in., scale 8 perches: 1 in.) surveyed 20 March 1591, showing roads, field boundaries, houses and streams and giving aggregate acreages for each field. A map of Baildon Common by Robert Saxton, 1610 (DD 146, paper, partly coloured, 1 ft. 11 ins. x 1 ft. 5 ins., scale 1 furlong: 1 in.), shows boundaries, streams and buildings on Mr. Baildon’s and Mr. Vavasor’s commons. MD 284/9 contains a coloured parchment map of Grewelthorpe Moor (early seventeenth century, 1 ft. 11 ins. x 1 ft. 5 ins.) showing boundaries, streams and houses.

Enclosure maps are usually of nineteenth or eighteenth-century date, but DD 104 includes a copy made in 1660 of the award for Embsay Pasture (parchment, 2 ft. x 1 ft. 9 ins.) which shows fences to be built and indicates by different colours which occupier is responsible for building which section of fence. Two partly-coloured maps on paper in DD 115/5 were surveyed by Joseph Raine in connection with an action at law, one being of Low Moor, Stainley (1 ft. 9 ins. x 1 ft. 4 ins., scale 16 perches: 1 in.), showing field boundaries and a building and giving acreages and tenants’ names, some field names having been added, and the other is of Westcoe (1 ft. 4 ins. x 10 ins.), dated 1686, and shows field boundaries and gives acreages and tenants’ names.

The society’s collections only include a single early town map – a survey of Knaresborough and Scriven made in 1629 by Saloman Swale (DD 56/K, parchment, partly coloured, 1 ft. 10 ins. x 1 ft. 3 ins., scale 20 perches: 1 in.) which shows streets, buildings and bridges. More conventional are two maps on paper of Hornby of early seventeenth-century date (DD 5/XLVII). An incomplete map (2 ft. 6 ins. x 1 ft. 3 ins.) shows field boundaries, the park pale, roads, streams and buildings, and gives field names and aggregate acreages. A more finished (and complete) map on a smaller scale (1 ft. 11 ins. x 1 ft. 5 ins.) is probably a fair copy of the larger map but with the field names and acreages not filled in. Later in date (c. 1690) is a fine coloured map of Norton Conyers and Nunwick (MS 672, parchment, 3 ft. 6 ins. x 2 ft. 2 ins.) which shows the river, closes, woods, roads and houses, giving acreages and the names of fields and tenants.

The collections include a number of less sophisticated maps, all of which are on paper. A sixteenth-century map of part of Harswell (DD 56/K, 3 ft. 5 ins. x 1 ft.) shows the boundaries of tofts and closes, lanes and streams, and gives tenants’ names and their rent. A later map of Harswell, 1605 (DD 56/K, 1 ft. 6 ins. x 1 ft. 3 ins.), shows field boundaries, streams and roads, giving acreages, field names and rents. An early seventeenth-century map of Maunby (MD 59/25, 1 ft. 6 ins. x 1 ft.) shows the Swale, field boundaries, woods and roads, also giving aggregate acreages for each field. A plan of Bellflask and Stainley Common (DD 115/5, 1 ft. x 8 ins.) shows the Ure, field boundaries, buildings and gives field names.

¹ It is hoped that a survey of a particular category of archives in the Society’s collection at Leeds will be a regular item in the *Journal*. It will also be used to draw attention to important new accessions or to groups of documents whose potential may not be generally appreciated.

² The version of an eighteenth-century copy (MD 225) claiming to be made from a map of the graveship of Holme surveyed in the reign of Henry V will be discussed in *English Medieval Local Maps*, edited by P. D. A. Harvey.

Simpler plans show little more than field boundaries. DD 56/K includes a plan of Finkle Holme by John Raine (1 ft. 5 ins. x 1 ft. 4 ins.) made 12 June 1669, having another plan of a number of intakes on the back. A plan of Skipton Old Park (DD 121/87/1f, 2 ft. 6 ins. x 1 ft. 11 ins.) shows field boundaries and Skipton Castle and its fishponds. The plan of Skipton New Park (DD 121/87/1e, 2 ft. 6 ins. x 1 ft. 11 ins.) shows the park divided into closes. In the same series are nine other plans (DD 121/87/1a-d, g-k, all 1 ft. 3 ins. x 1 ft.) of Sun Moor and Jackman Close, Waltonwrays, *Cunny Garths*, Lower Snaygills, Hodgson's farm (Thoraldby), Sturton Moor and Sturton Ings, Thoraldby field, Thoraldby Moor and Skipton Ings.

Bibliographical Review

MAP AND LANDSCAPE

By ALAN HARRIS

Printed county maps understandably command wide affection. Not only do they provide in many cases attractive collectors' pieces, but they yield also much information about the local scene. Their correct evaluation, however, whether as historical sources or collectors' items, can prove a formidable task, especially in the absence of published bibliography.

The detailed examination of county maps owes a great deal to the example of Sir H. G. Fordham, whose catalogues of the printed maps of Hertfordshire and Cambridgeshire, which appeared between 1901 and 1908, provided the inspiration for similar work elsewhere. Fordham's investigations were followed by those of Thomas Chubb, whose best known contribution to the history of cartography, *The Printed Maps in the Atlases of Great Britain and Ireland, 1579-1870* (1927), had been preceded by catalogues devoted to the county maps of Wiltshire, Gloucestershire and Somerset and was followed in turn by a volume on Norfolk. But it was left to the late Harold Whitaker to fill in some of the many gaps that remained, particularly in the record of the northern counties. *A Descriptive List of the Printed Maps of Yorkshire and its Ridings, 1577-1900*,¹ first published by the Yorkshire Archaeological Society in 1933 and now reprinted in its original format, was one of five similar volumes completed by Whitaker during the last twenty years of his lifetime and published by county archaeological or historical societies. *A Descriptive List of the Printed Maps of Lancashire, 1577-1900* appeared in 1938, a companion volume on Cheshire in 1942 and a catalogue of the printed maps of Northumberland in 1949. South of Trent one county, Northamptonshire (1948), also received the benefit of Whitaker's careful scholarship.

His was a splendid achievement. More than 700 maps are listed in the Yorkshire volume alone, and though only a small proportion of this number are illustrated by reproductions, almost all the entries carry informative descriptive notes. Many of these embody the results of considerable research. Sometimes, as Whitaker himself points out, it was possible to complete an entry only after lengthy investigation had elucidated a complex printing history which might extend over many years and involve a number of different publishers. Difficulties notwithstanding, Whitaker's catalogues usually proved to be 'second to none in accuracy and completeness'.²

The maps described by Whitaker are uneven in quality. Some are crudely finished and inaccurate, a great many are mere copies, but the best, such as those of Thomas Jefferys, Andrew Bryant, Christopher Greenwood and the Ordnance Survey itself, combine an acceptable degree of accuracy with fine engraving, a pleasing sense of proportion and the use of a scale that permits the representation of much detail.

Together they provide a conspectus of the map-maker's art, reflecting attitudes of mind, commercial aspirations and public demand, as well as the use of different techniques. They also afford a fascinating view of a country in transition, from Elizabethan to Victorian times. For the student of settlement patterns, communications, agricultural change or industrial archaeology, they may yield anything from an important clue to an entire distribution.³ They provide information about such varied topics as the extent of commons, the distribution of parks, the position of wind and water mills and the shape of towns. Moreover, as J. B. Harley has observed, they may 'provide control and framework for more fragmentary topographical sources', thus enabling these to be employed with greater effect.⁴

Used without full knowledge of the circumstances in which they were published, however, or in ignorance of their inherent limitations, they may seriously mislead. Many reprints, altered as to date perhaps but otherwise little changed, are recorded in Whitaker's lists. Nor were all county maps based on an original field survey. As late as 1750 indeed, many still 'mirrored the maps of the sixteenth and seventeenth centuries'.⁵

The bibliography of county maps has made considerable progress during the last twenty years. Some districts, and most notably perhaps Warwickshire and London, have been provided for the first

¹ *A Descriptive List of the Printed Maps of Yorkshire and its Ridings, 1577-1900*, Yorkshire Archaeological Society Record Series, lxxxvi (1933). Reprinted for the Society (1971), pp. xiii + 261, price £3.00.

² *Geographical Journal*, lxxxiii (May 1934), p. 428, in a review of *Yorkshire Maps*.

³ J. B. Harley, 'William Yates and Peter Burdett: their role in the mapping of Lancashire and Cheshire during the late eighteenth century', *Trans. Hist. Soc. of Lancs. & Cheshire*, 115, 1963 (1964), provides good examples.

⁴ *The Local Historian*, 8, no. 5 (1969), p. 167.

⁵ J. B. Harley, 'The re-mapping of England, 1750-1800', *Imago Mundi*, xix (1965), p. 56.

time with magnificently detailed catalogues of their printed maps.¹ Elsewhere, older lists have been extensively revised.² The map user's task has been eased also by the publication of Elizabeth M. Rodger's *The Large Scale County Maps of the British Isles, 1596–1850* (1960), which indicates where certain maps may be found.

These and similar publications have not diminished the practical value of *Yorkshire Maps* although, inevitably, they have brought to light new information on county maps generally. Readers of Whitaker may now wish to consult R. A. Skelton's *County Atlases of the British Isles 1579–1850* (1970), for further discussion of the printing history of a number of Yorkshire maps, and *The historian's guide to Ordnance Survey maps* for a more extended treatment of this important group of material.³ Those whose interests lie less with the maps themselves than with their makers and their business methods, will find that they too are provided with more information than was available to Whitaker.⁴

A re-reading of *Yorkshire Maps* leaves one with mixed feelings. On the other hand, it is highly satisfactory to know that this indispensable book is again readily available. But its re-issue serves also as a reminder that county maps form only a small part of Yorkshire's wonderfully varied cartographical inheritance. A vast accumulation of manuscript material in record offices, libraries and private archives still awaits publication. Excellent lists of manuscript maps have already been compiled, but all too often these remain as card indexes or unpublished calendars. Is it too much to hope that the next ten years may see the publication of catalogues devoted entirely to manuscript maps and plans? Such lists would undoubtedly bring together a rich store of material. They would also provide fitting companions for Whitaker's volume.

REVIEWS OF BOOKS AND PAMPHLETS⁵

K. J. Allison, *East Riding Water-Mills*; York: East Yorkshire Local History Series No. 26, 1970. 52 pp., 50p.

The East Riding has never been an outstanding area for water-mills. The geographical reason for their small numbers (42 in Domesday, 59 in the 1850s) is emphasised by the distribution map, with clusters of mills around the edge of the Wolds but with hardly a site on the flatlands and dry uplands that constitute most of the Riding. In quality, the mills were mostly functional in style, small or medium-sized, and of standard layout. Almost all were for grain, though a few fulling, wool, paper and saw mills once existed. Nonetheless, though the material is not so exciting as in, say, East Anglia, it is of considerable local importance. This booklet contains three sections: a history of water-mills in the Riding traced from documentary sources, a comparative survey of the 38 remaining buildings, their water supply and (where it survives) machinery, and a succinct gazetteer of individual sites based on fieldwork by a number of collaborators. This diversity of surveyors has resulted in slight unevenness of detail, and a few of the interpretations can be queried. But Dr. Allison's method – a fruitful marriage of local history and industrial archaeology – has produced an instructive and eminently useful booklet and a worthy addition to an admirable series.

M. J. T. LEWIS

Joyce M. Bellamy, *The Trade and Shipping of Nineteenth-Century Hull*; York: East Yorkshire Local History Series, No. 27, 1971. 72 pp., 55p.

At the beginning of the nineteenth century Hull's future looked rosy. Served by an extensive web of inland waterways and with no near competitor of consequence she appeared ready to build upon her partnership with the industries of West Yorkshire and the East Midlands, once the troublesome French Wars were over. In fact the new century brought unexpected challenges. From the 1820s the canal port of Goole was a thorn in Hull's flesh, while the railway age quickly breathed new life into Grimsby and made both Tees and Tyne competitive for some trades. Not until late in the century did Hull become a really considerable exporter of coal and even the growth of trawl fishing (which offered some compensation for the end of whaling in 1869) was for a time hampered by inadequate provisions. Relations between the Dock Company and the North Eastern Railway (which finally took it over in 1893) were often bad;

¹ P. D. A. Harvey and Harry Thorpe, *The Printed Maps of Warwickshire 1576–1900*, Warwick (1959); Ida Darlington and James Howgego, *Printed Maps of London Circa 1553–1850*, London (1964).

² D. Hodson, 'The Printed Maps of Hertfordshire 1577–1900', *Map Collectors' Circle*, no. 53 (1969), no. 59 (1969), no. 65 (1970).

³ Skelton's work was first published in the *Map Collectors' Circle* between 1964 and 1970. A series of articles by J. B. Harley in *The Amateur Historian* (1962 *et. seq.*) may be compared with J. B. Harley and C. W. Phillips, *The historian's guide to Ordnance Survey maps*, National Council of Social Service for the Standing Conference for Local History (1964).

⁴ See for example the section in Skelton, *op. cit.*, on the London map-trade before 1700. Reference should also be made to the notes on pp. 126–144 in Kenneth J. Bonser and Harold Nichols, *Printed Maps and Plans of Leeds, 1711–1900*, Thoresby Society, xlvii, 1958 (1960); and to J. B. Harley, 'The bankruptcy of Thomas Jefferys: an episode in the economic history of eighteenth century map-making', *Imago Mundi*, xx (1966), p. 27, *et. seq.*

⁵ The Editor wishes it to be understood that any opinions expressed in a *Review* are those only of the reviewer, to whom any resulting correspondence should be addressed.

and the railway usually had too many irons in the fire to give Hull the special attention which its commercial interests felt essential. Admittedly the opening of the Hull & Barnsley in 1885 improved the port's communications and created a new dock for general trade, but not until the early twentieth century did Hull rejoice in fully satisfactory waterside facilities. By 1914 Hull traded with the world – though her traditional links with northern Europe and with the coastwise trade remained close. Yet her percentage of Britain's exports had declined somewhat and, overall, despite considerable absolute expansion, her relative share of British trade was barely maintained. Inward cargoes had become more important than those shipped outward – a reversal of the earlier situation.

Dr. Bellamy, from her vast knowledge of Hull, offers her readers sure guidance to these and many other complexities, and finds space for some valuable glimpses of the merchant community, the ship-owners, the coming of steam and the developing local industries. Squeezing a quart into a pint pot is never easy, however, and occasionally a little less detail and a little more interpretation would have made for greater interest. Sometimes, too, the very sharpness of the local focus omits important elements of the background. Anyone ignorant of the discovery of the Dogger Bank 'silver pits' in the 1830s might well wonder why the early trawling smacks were deserting Devon, Kent and Essex for the Humber (p. 37). But one must not end on a carping note. Both local and national historians have been well served by this useful publication.

BARON F. DUCKHAM

Frank Brearley, *A History of Flamborough*, The Ridings Publishing Company, Driffeld, 1971. 209 pp., illus., £1.50.

So much good work is now being published by amateur historians, often under the influence of adult education classes, that an old-fashioned antiquarian parish history is becoming something of a curiosity. Mr. Brearley's big and lavishly-produced book, however, falls into the latter category. It consists of a long series of chapters, arranged by topics, each of which contains an ill-assorted collection of material dealing with general as well as local history. It may be true that a careful reader will glean some useful and interesting information from these pages, but he will need to recognise much inaccuracy and misunderstanding. The verification of Mr. Brearley's facts will, moreover, be the more difficult because of a general absence of references. The sections dealing with fishing, with boats, and with the Flamborough sword dance contribute some of the more valuable and original passages to the book. Elsewhere there is much repetition from printed works. Many details seem to be drawn from the parish records, but it would be intriguing to know the whereabouts of the excellent series of parish officers' accounts which are much used by Mr. Brearley and which he tells us have suffered from damp and neglect; they are neither among the parish records nor in any public repository.

K. J. ALLISON

R. M. Butler (Ed.), *Soldier and Civilian in Roman Yorkshire*, Leicester University Press, 1971. 208 pp., 8 pls., 28 figs., £4.00.

This stimulating book is a collection of essays to commemorate the nineteenth centenary of York. Consequently the subjects implied in the title are not covered comprehensively, and at least three of the papers are not happily sheltered by the title. Nevertheless it is an important book, containing much that is of real value.

On York itself, L. P. Wenham summarises the slight evidence for pre-Flavian occupation, whether Roman or native. H. G. Ramm provides a comparable statement for York in the sub-Roman period. Inadequate though the evidence is, it is most useful to have it collected together. Such as it is, it points to a continuity of occupation which we would have expected. On p. 190 the confusing orientation should read 'north-west – south-east'. Eric Birley provides an admirable discussion of the increasing quantity of evidence which indicates the survival of *legio IX Hispana* until at least c. 130, whether in Britain or elsewhere. That it may have left York c. 110 is suggested by the marked decline in the number of stamped Samian vessels for the period 110–125, as discussed by Brenda Dickinson. In the other half of the same paper K. F. Hartley uses the evidence of mortarium stamps to show some of the trading connections of York.

Editing a work of this nature is a thankless task, and Dr. Butler has done his work well. It is therefore disappointing to record that his own paper is one which should not have been published without substantial revision. Discussing the fourth-century rebuilding of the river-front of the fortress, he attempts to put its unusual polygonal towers into an Imperial perspective. Discarding examples which do not suit his argument, he derives those at York from a group of the late third century in Switzerland, and gratuitously associates with them the similar bastions at Cardiff and gate-tower at Risingham. But, as Butler himself admits earlier, the Risingham gate had polygonal towers in the early third century, and similar towers were erected as late as the fifth century at Constantinople. We must conclude that while polygonal bastions were always rare, they do not provide any evidence of date. Butler's further suggestion that the appearance of polygonal towers in Switzerland and Britain derives from the movement of troops or engineers goes far beyond the legitimate inferences which may be made from archaeological evidence.

The papers on York itself are concluded by A. F. Norman's account of religion in the fortress and *colonia*. Here there is much of value, and we can only regret that the amount of the material has restricted the extent of the discussion; we may hope that Professor Norman will give us an expanded version of his paper, following up some of the ideas at which he only hints here.

For Yorkshire we have several useful papers. I. M. Stead concentrates on his own important work on the pre-Roman Iron Age of the East Riding, and it is to be regretted that we do not have a comparable account of new discoveries in the rest of Yorkshire. Even if new discoveries are lacking, a statement of present knowledge would have been of value, and might well have stimulated renewed work in these areas. There are two papers on the Roman towns of Yorkshire. Dorothy Charlesworth summarises the evidence for the defences of Aldborough, and J. S. Wachter presents an interesting discussion of the towns in the fourth century, considering especially occasional occupations by soldiers, if not by complete units. The case of Malton, with civilians apparently following the army in occupation, is interesting. The reviewer cannot accept Wachter's suggestion of civilians sharing the area of a fort with an army unit, even in the late fourth century. The evidence for similar proceedings on Hadrian's Wall is not secure; it consists mainly in the abandonment of external settlements, with no certainty that the civilians moved inside the forts.

Three papers remain. Graham Webster publishes a hoard of military equipment found in Swaledale early in the nineteenth century, some of the material being now in York and the rest (assuming none is lost) in London. Brian Hartley discusses the history of the Roman frontier in the second century. The discussion is splendid, though not all the conclusions are acceptable; but the proof of this would require a detailed rebuttal for which this is not the place. Nor was this book the place for A. R. Birley's paper '*VI Victrix in Britain*'. We know remarkably little of the activities of this legion, and much of the paper is concerned with the careers of various officers: it has value and interest, but is of little relevance to York or Yorkshire.

Finally mention must be made of the Introduction, by S. S. Frere. He makes two points to which attention may be called here; the need for an Excavation Committee for York, to co-ordinate activity throughout the modern town (and, we may add, to employ at least one full-time professional archaeologist to excavate and to watch sites which cannot be dug before development); and the need for more attention to the problems of the *colonia*, about which we know remarkably little. A striking omission from the book is the West Riding; it emphasises the small amount of work which has been done there in recent years, and may perhaps serve as a spur to renewed activity in the study of its important (if unromantic) Roman sites.

MICHAEL G. JARRETT

A. B. Craven, *Victorian and Edwardian Yorkshire from Old Photographs*. Batsford, 1971. 160 pp. £2.10.

This book makes one aware of the great variety of material available for Yorkshire at this time. The author's major emphasis is on the urban scene, although spread throughout the book under headings such as Industry and Crafts, The Coast, Shops and Markets, and Vehicles. The main strength lies in the diversity of subjects presented and the fine detail in each image.

The majority of images taken by earlier Victorian photographers were not designed to fulfil any particular artistic or commercial need. They were made so that the photographer could practise a new and highly complex process in which success was to a large extent a matter of chance. Later with the development of the 'snapshot' camera, photography became simple enough for large numbers of people to attempt; the instantaneous shutter of this period brings in a freshness of approach and incidentally, a predominance of seaside scenes.

It is fortunate that so many of these photographs have survived, for, many of them taken by little-known photographers, they have a significant function as documents of social history.

This, the sixth in the series on Great Britain, can be strongly recommended.

ROGER TAYLOR

Freda Crowder and Dorothy Greene, *Rotherham, its History, Church and Chapel on the Bridge*; S.R. Publishers Ltd., 1971. 69 pp., illus., 38p.

The centenary of the royal charter of 1871 which incorporated the borough of Rotherham has been celebrated by a variety of civic events and by this publication. The commendable idea of marking the occasion with a new survey of the town's long and interesting history has regrettably not found adequate expression in this booklet. The cumbersome title does in fact indicate its curious structure, which is made up of an historical account of the town by Freda Crowder and two well-known pamphlets by Dorothy Greene, which have served for years as informative guides to the parish church and the bridge chapel.

Nothing has been done to unify the three sections, so that the last words refer to the Festival of Britain, and a major event like the birth of Thomas Rotherham is recorded on three separate occasions. Apart from this general criticism, much information on the town's history has been compressed into the new section which extends from the building of the Roman fort at Templebrough to the closing of the old market hall in 1971. Freda Crowder is clearly more at home with the Victorian period than with the medieval, where, for example, her account of Rotherham in Domesday Book is better disregarded. In the modern period, however, her presentation of the growing volume of facts is less systematic than could have been wished and she does not allow herself space to consider even briefly the kind of questions that a local historian should now be asking about the development of Rotherham.

Although Dorothy Greene's pamphlets include plans and illustrations, the first section lacks any map of the town, a serious omission, which like some of the errors and oddities in the printing may be attributed to overhasty production.

JOHN BESTALL

Norah K. M. Gurney and Sir Charles Clay (Eds.) *Fasti Parochiales*, iv; Leeds: Yorkshire Archaeological Society, Record Series, cxxxiii, 1971 for 1970, xvii + 153 pp. £3.00.

There can be few regions, if any, which have lavished such precise and effective scholarship on the history of parishes as Yorkshire, and it is a pleasure to welcome another volume in the series of parochial *Fasti*. It is the fruit of a joint enterprise by Mrs. Gurney of the Borthwick Institute and Sir Charles Clay, and it is everything we should expect of a conspiracy between these two scholars; it will be a particular delight to the readers of this *Journal* to welcome the latest of Sir Charles Clay's numerous contributions to the work and reputation of the Society. This volume provides lists of the incumbents of the parishes in the Deanery of Craven before the Reformation, and puts together a notable amount of information for the local history of that area. It is also of wider interest, not only to Yorkshire historians, but to all interested in the history of parishes and of the medieval church, as an indication of what can be known about the rank and file of the clergy in a comparatively well-documented diocese. There is a good deal of information to be deduced from it about the way in which clergy were recruited, about the structure of clerical society and the relations of rectors, vicars, lay patrons and religious houses. It may not tell us much directly about the quality of the clergy of Craven – or whether St. Bernard was right or wrong in thinking that after the election of St. William religion would grow cold in the diocese of York. But it contains a precise and interesting record of parish clergy, so far as they can be reconstructed, immaculately presented.

C. N. L. BROOKE

Huddersfield Maps from 1634; Huddersfield Public Libraries, 1971. 6 maps (55 cm. x 43 cm.) £2.50.

The first and last maps in this generally well-produced collection are of Almondbury, in 1634 and 1844. The earlier map shows a rural area, and it was still rural 210 years later, though with denser building in Almondbury itself, Lockwood and Berry Brow. A large-scale map of Huddersfield in 1778 shows a straggling town, for although the turnpikes and Ramsden canal appear, much of the township was open ground and tenter croft. The next map, of 1797, illustrates Huddersfield's dominance among surrounding villages, its Cloth Hall acting as a magnet to hand-loom weavers and merchants. The area controlled by the Lighting and Watching Commissioners is shown in a map of 1825, when the grid pattern of streets was taking shape. This is followed by a rather fussy map of 1826, which gives some information on industrial and public buildings.

Each map has an introduction, but most need Terriers for their full value to be realised.

HUGH BODEY

Ian Kershaw (ed.), *Bolton Priory Rentals and Ministers' Accounts, 1473–1539*, Yorkshire Archaeological Society Record Series cxxxii, Leeds: Yorkshire Archaeological Society, 1970 for 1969. Pp. xxviii + 72. Tables. Maps. £2.50.

The Bolton Priory estates assumed what proved to be virtually their final form under John of Laund in the years 1305–15. At that time they included all the classic elements in a dale-land economy: predominantly pastoral properties in upper Malhamdale and the moorlands overlooking the Wharfe and Aire, arable manors like Skipton and Harewood in the valley, and the lead-mining centre at Appletreewick later to be joined by Cononley. Dr. Kershaw's volume by presenting well chosen documents with an informative introduction chronicles their economic history over the years 1297–1539. Unfortunately in interpreting the information the essential geographical diversity of the estates is largely overlooked, perhaps in a mistaken attempt to force their development into a mould of historiographical orthodoxy. For instance in the survey of rent trends the author seems surprised that a comparison of the 1473 rental with the 1324/5 *compotus* reveals that 'a few rents had increased and many were the same'. He seems to feel a need to explain away these rising or stagnant rents (approximately half the comparative entries in table 2) by textual criticism: we are assured in a note that 'the lord's income according to the rental is a potential one, his actual income might be further diminished by tenement vacancies or rental refusals': but surely the very purpose of a rental was the elimination of such deficiencies. Moreover, disaggregation of the rent series reveals a not unexpected fall from 1325–1473 on such valley arable manors as Kildwick, Gargrave or Steeton usually followed by a rise from some date between 1473 and 1539. On the other hand there was a rapid rise, and subsequent slow growth or even decline, on upland pastoral properties like Storiths below Carcliff or Otterburn. Significantly different from either are the two mining manors – Cononley and Appletreewick. The latter benefited from the late fifteenth-century North Pennine mining boom, whilst both suffered in the post-1527 crises. Indeed at the Wharfedale centre the period of the Dissolution was not one of 'considerable profits' but rather one in which stocks, built up in the miners' lodges, remained unsold or were dumped on a depressed market at give-away prices. What we get, therefore, are diverse developments from a diverse environment; closer analysis would have served the author well, and firmly established his helpful study within the current historiographical framework whilst adding new dimensions to that edifice. For in spite of these criticisms, this book contains much of interest and should be included in the library of anyone interested in the economic history of medieval England north of the Trent.

I. BLANCHARD

Barry Marsden, *Discovering Regional Archaeology: North-west England*; Shire Publications, Tring, 1971. 56 pp., 28 plates, 3 maps, 30p.

This new regional guide deals with the most important field monuments of north-west England. 99 sites are briefly described, although readers may fail to agree with the final selection. Purists will query

the bald use of the term Iron Age, and possibly Saxon also, when applied to the Heysham hogback. Burwens and Howarcles, Crosby Ravensworth are Iron age (no Ewe Close), whilst Crosby Garrett is considered Iron age and Roman. The author describes 'Iron age' Castercliffe, Nelson, from field observation, and states that it is unexcavated: excavation took place there between 1958 and 1960 and during the 1970-71 seasons. Most people will be very well satisfied with the pocket-size format and with the 28 photographs; it is extremely good value for money.

ALAN KING

Harold Richardson (Ed.), *Court Rolls of the Manor of Acomb, vol. I*; Yorkshire Archaeological Society Record Series, vol. cxxxi, 1969. viii + 252 pp., £2.50.

Shortly after the publication of his useful *History of Acomb* (Yorkshire Philosophical Society, 1963), the late H. G. Richardson learnt of the existence in private hands of some 66 court rolls of the manor and about 200 related manuscripts dating from 1553 to 1767; there subsequently came to light in a York solicitors' office two further volumes of records of the courts from 1737 to 1797. These documents have now been lodged in York Public Library and in this book Richardson prints such of them as date from before 1761, together with the roll for the courts of 1544-45, the earliest known for the manor, from the Borthwick Institute. The editor's death makes it unlikely that the second volume will appear, but an index is promised in a later volume of the Record Series.

The Domesday manor of Acomb was a peculiar of the Treasurers of York from 1228 until it passed to the Crown with the subversion of that office in 1547. It was exchanged for York House and other properties in St. Martin's-in-the-Fields, London, in 1623, and held by the Archbishops of York until 1855. During the long period when it was in the hands of the Crown and the Archbishops it was farmed out to various families, usually for periods of 11 years at a reserved rent of £42 per annum. Richardson, using surviving hearth tax assessments, estimated the population of Acomb at 230 in 1670 (*History of Acomb*, p. 37). Since 1937, the township has been incorporated in the City of York.

Richardson's edition constitutes a full calendar in approximate chronological order, including the marginal notes and retaining the original spelling of names, but translating from Latin where necessary. The manorial court, which met in the three capacities of Court Baron, Court Customary, and Court Leet, was normally held by the lord's steward at Easter and Michaelmas, and business commonly followed the order: complaints, surrenders, presentments, ordinances, and the election of officers. The records are fairly full from 1553 to 1558, 1567 to 1584, 1592 to 1602, 1612 to 1624, 1650 to 1668, and 1734 to 1750. The editor makes no attempt at analysis of the court rolls of the kind we have come to associate with the University of Toronto or such as will be found in A. C. F. Baber's *Court Rolls of Bromsgrove and King's Norton 1494-1504* (Worcestershire Historical Society, 1963), but the book does represent a valuable addition to our store of what W. E. Tate called 'those most precious of local records' (*The Parish Chest*, 1969, p. 276). It is testimony to Richardson's scholarship that, although he died before the proof stage of this work was reached, only minor misprints (e.g. 'above' for 'below', p. 33, and 'dft' for 'plt.', p. 55) and small solecisms (e.g. 'salary arrears', p. 31) are to be found in the volume.

Acomb was famous in medieval times for its trade in scouring sand and the parish register refers to a sand man as late as 1803 (H. Richardson, *The Parish Register of Acomb*, Yorkshire Archaeological Society Parish Register Section 1966, p. 117), but the occupations most frequently mentioned here are merchant, husbandman, brewer, cordwainer, and bowyer. The absence of an index is restricting but an illustration of the interest of the rolls is to be had by collating the reference to one family. The parish register does not seem to mention the family after the 1630s, and a Thomas Vessey was receiving poor relief in 1633 (*History of Acomb*, p. 38), but the Vescys or Vesseys earn frequent mention in the court rolls in the sixteenth century. William Vescy, for instance, is fined 12d 'for assaulting Thomas Holgate', 1554; 10s 'for an affray and drawing blood of Andrew Smyth' and 2s for tethering his horses in the winter corn fields, 1555; but is mentioned in 1568 as acquiring an acre of land, in 1569 as a juror and as an aletaster, and in 1570 as a tenant-at-will. In 1575 he and Mrs. Vessey were each fined 4d 'for breaking John Englebye's hedges', in 1576 the court found against him in a complaint he made that Robert Hill had not carried out an agreement to sell him an acre of land, and in 1577 he had to pay 3s 4d 'for an affray against John Vesse, his son'. Perhaps, however, the son was more at fault than the father, for John was charged 6s 8d in the matter of the affray and a further 3s 4d not to allow his wife to chide or scold. William is mentioned again several times, particularly in connection with the 'Weete Lande'; a penalty of 6s 8d was imposed on him in 1579 'not to mow the swarthe on the near side of the Weete Lande towards the West Yngs', and in 1583 he was both fined 12d on each of two presentments - 'for mowing over a furrow of meadow in the West Yngs' and 'for encroaching on the lord's waste at the Town End Yate, at the W. end of his house', and given penalties of 3s 4d each not to mow over the above mentioned furrow and 'to make his fence at the W. end of his house to join the ash tree there as it formerly did before Whitsuntide'. A further penalty of 10s was imposed upon William in 1584 'not to plough or mow more than his own land upon the Wetelands'.

G. R. BATHO

William K. and E. Margaret Sessions, *The Tukes of York*; The Ebor Press, York, 1971. 118 pp. (21 cms. x 14.7 cms.) £1.00.

This short account of a Quaker family, in effect from about 1700 to 1850, is of interest to those who know York and to those who relate economic changes to human experience. A small grocer's shop, kept in being by a woman, Mary Tuke, who successfully claimed her freedom of the City of York in 1725 and defied the Company of Merchant Adventurers, developed into a sound, if not flourishing, business in tea,

and later in coffee, cocoa and mustard. The family energies extended outwards to the society in which they lived, and they played considerable rôles in establishing and running three schools (Ackworth, the forerunner of The Mount, and Bootham), and in founding The Retreat, the pioneer hospital in the humane treatment of the mentally sick. These were their more substantial achievements, but they also supported John Woolman's anti-slave campaign in 1772, they enquired into, and established a scheme for, old age pensions, and published facts about chimney-climbing boys, all before 1825.

The brevity of the book enables the reader to realise the considerable degree of change in the period covered, and its effects. The amount and nature of travel, both at home and overseas, the changing crafts, the rôle of women, all emerge vividly, as does the ability of religious nonconformists to work for the common good in spite of those restrictions imposed on their opportunities, some by statute and some by their own consciences. The story is clearly told, the illustrations are interesting, and there is, in addition to a short book-list and index, a helpful glossary of Quaker terms. Unfortunately, the book is of awkward size.

MAUD BRUCE

H. E. C. Stapleton and M. J. A. Thompson, *Skelton Village – The Continuing Community*; York: The Sessions Book Trust, 1970. iv + 100 pp., 2 maps, 75p.

Anyone coming to live in Skelton and interested in his new surroundings should be very satisfied to find available such a comprehensive and well-produced introduction. A history of the village, 3 miles northwest of York, and a thorough study of the Early English parish church, both by the Rector, are separated by a survey of the local ecology. There are also brief accounts of Francis Taylor and Sir Richard Hotham, two seventeenth-eighteenth-century Skelton worthies. The church was built in 1247 and restored by Ewan Christian in 1883. Its history is illustrated by extracts from the churchwardens' accounts and by transcripts of memorial tablets. This section of the book might have followed the historical account more immediately and a plan of the church would have been of more use than some of the sketches of birds. Dr. Thompson's study of the natural history shows that with 21 species of mammals, 94 varieties of birds, and 330 different flowering plants, Skelton parish, now including the former mother settlement of Overton, is still thoroughly rural.

R. M. BUTLER

L. P. Wenham, *The Great and Close Siege of York, 1644*; Kineton, The Roundwood Press, 1970. xviii + 250 pp., £3.25.

The biggest battle of the Civil War was fought at Marston Moor, and historians have discussed at length the military problems involved. Comparatively little has been written about the siege of York which Rupert's army came North to relieve, though Charles I himself wrote 'If York be lost, I shall esteem my crown little less.' Mr. Wenham has now attempted to remedy this deficiency, in a well-produced volume, with many plates (though one or two of these might well have been sacrificed in favour of a better plan of the city than the reproduction of James Archer's plan of c. 1682). He has combed through every conceivable source for references to the course of military events, and he prints most of them verbatim either in his narrative or in appendices; he even prints the names of all the casualties recorded in the parish registers of the city's churches, and he discusses in detail such problems as the location of the various sconces or gun emplacements. This laborious work will not have to be done again.

If the result is in some ways slightly disappointing, this is not altogether the author's fault. The siege was not rich in dramatic events, other than the premature firing of a mine under St. Mary's Tower by some of Manchester's officers on 16 June, and a small sally on 24 June. The garrison was not reduced to great privations at any time. The book says little to affect conventional views of the skill of the military commanders. One might wish for more about the ways in which the lives of the citizens of York and the people of the countryside were affected by the operations, but the York House Book is unfortunately blank for almost all the period of the siege, and the reader has to be content with occasional glimpses. There are hints of conflicting loyalties amongst the people of York: there is a reference to 'a company of 250 stout volunteer citizens' led by the son of an alderman (p. 60) but Newcastle had had to insist on the re-election of a loyal mayor in 1643 and 1644 and there are hints of an understanding between some of the aldermen and the Scots (pp. 47–8). We hear a little of Newcastle's methods of organising the billeting and feeding of his soldiers (p. 16) and of the Earl of Manchester's use of tickets for the same purpose (p. 34). Many citizens must have suffered from the firing of the suburbs by the Royalists for military reasons (p. 40): on the other hand, they owed much to Fairfax in particular for the relatively lenient terms of surrender and the preservation of the Minster. The parliamentary leaders even attempted, though without complete success, to prevent the plundering of the Royalist soldiers as they marched out (pp. 99–100). The reader who wants to put the events described here in a wider context in the history of York should refer to Mr. Forster's seventeenth-century chapter in the *Victoria County History* of York, which unfortunately is omitted from Mr. Wenham's bibliography.

K. H. D. HALEY

L. P. Wenham, *York*; Longmans, 1971. 176 pp., illus., £1.60.

This well-produced addition to Longmans' Local History series does something to set the story of the City and its people in a national context. The names of national figures pass by at regular intervals, although the thinning of their ranks after the seventeenth century draws attention to York's changing status. However, the author is more often concerned with York's own citizens. We see them curing herrings in a Roman public building in the ninth century, performing the great sequence of Mystery

Plays in the Middle Ages, grappling with the problems of 're-edifying' the Ouse bridge in 1565, living on the poverty line in 1899, and rebuilding the Guildhall in 1960. The early chapters are certainly a rich mixture of archaeological, placename, saga and documentary evidence; however, the modern material is rather thin. Although social problems are well illustrated from the 1844 Report and from Rowntree's survey of 1899-1901 there is little analysis of efforts made by the City to solve its problems, and it is strange that no mention or use is made of Rowntree's later surveys.

A visit to York would be enriched by reading the book beforehand, and, for schools, it provides starting points for project work. However, it is sometimes heavy going and after some – admittedly limited – consumer research I feel that the dust-jacket's '12-plus' recommendation is over-optimistic. For the child inclined towards history this close-packed information could be a delight, but otherwise the book will need careful use. It is a pity that some of the line drawings add so little to the picture of the city (for example; Oliver Cromwell, p. 118; German bombers, pp. 160-1), and that local maps are almost ignored, although appearing in the suggestions for further reading.

K. J. WOODROW

All communications relative to the Editorial side of the **Journal**, should be addressed to the Hon. Editor, D. W. CROSSLEY, B.A., Dept. of Economic History, The University, Sheffield, S10 2TN.

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